MAY 30, 1966

RAILWAY AGE
WEEKLY

McCARTNEY LIBRARY
GENEVA COLLEGE

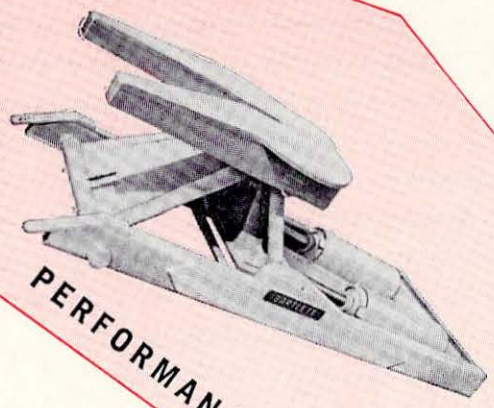
TOFC or COFC? Competition will pick a winner

RD66 1116
GENEVA COLLEGE
MC CARTNEY LIBRARY
BEAVER FALLS PA 15010

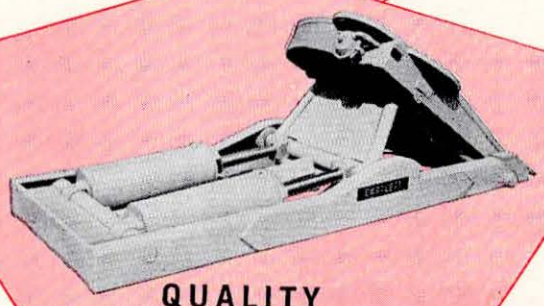
NEW BARTLETT HYDRAULIC LIFTING 5th WHEEL

M-62 Twin

100,000 LBS. CAPACITY



PERFORMANCE



QUALITY

RUGGED

More Fleets Use
BARTLETT HYDRAU. LIFT 5th WHEELS
Than Any Other
•

Recommended for:
HEAVY DUTY
PIGGY BACK OPERATIONS
INTERPLANT...
HEAVY OFF HIGHWAY WORK
ESPECIALLY... STEEL,
ALUMINUM AND
INGOT FOUNDRIES.
WILL LIFT 100,000# 14" HIGH.

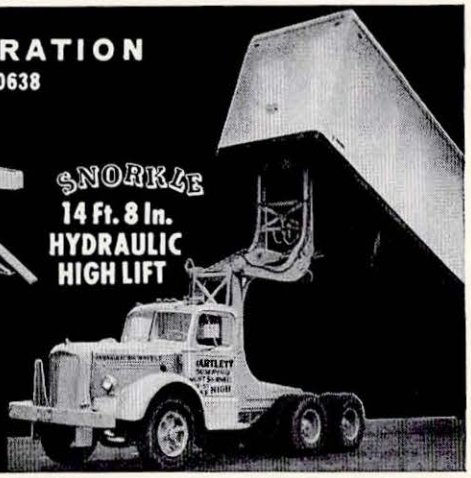
Bartlett is constantly improving quality using high alloy steels, (no castings) and increasing unit weights thereby eliminating down time.

OTHER MODELS
INSIDE FRAME MOUNT UNIT AVAILABLE WITH 19¾" LIFT... FOR SPECIFIC TRACTORS HAVING AXLE CLEARANCE TO PERMIT LOWER MOUNTING.

• ASK FOR THE NAME OF A USER IN YOUR AREA.

• DEALERS IN ALL LARGE CITIES

BARTLETT TRAILER CORPORATION
6850 W. 63rd ST. . . . CHICAGO, ILL. 60638
AREA CODE 312: 586-8200



Circle 1 on reader service card

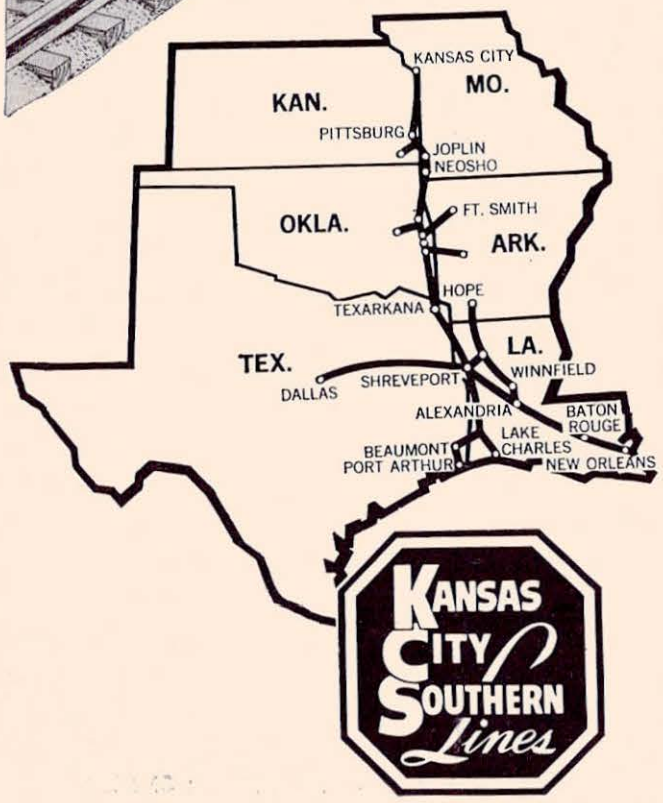
This Little Piggy Went to Market

these "BIG PIGGIES" *Go to Market!*

PIGGYBACK SERVICE has grown up and can do an expert shipping job for you.

It's the modern way of getting your goods (including perishables) to and from your place of business with savings in time and money!

Any Kansas City Southern traffic representative will be pleased to consult with you, or call upon me.

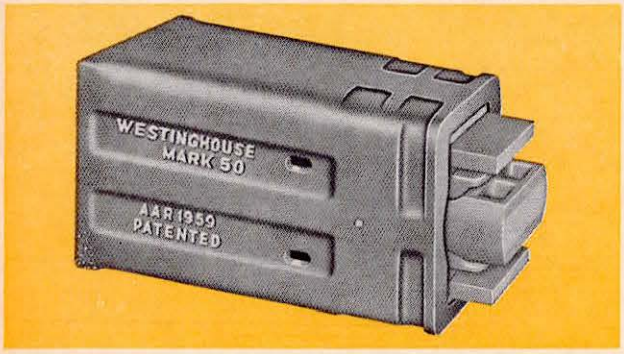


J. W. SCOTT
Vice President—Traffic
KANSAS CITY, MO. 64105
Tel. 816 VI 2-0077

Circle 4 on reader service card

TIME-PROVEN CAR PROTECTION...

MARK 50



Over 125,000 Westinghouse Mark 50 Friction Draft Gears are in use on over 100 railroads and private car lines in the United States and Canada! Since the first order was received on January 20, 1961, the Mark 50 has proven its ability to minimize bad-ordered cars and maintenance costs.

The Mark 50 is Unconditionally Approved by the A.A.R., Certificate No. 41, Spec. M-901E!

Application can be made to 24⅝-inch pockets with standard 17¾-inch striker.

Specify the time-proven Mark 50 for your cars and save!

RPI MEMBER

CARDWELL WESTINGHOUSE COMPANY

332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60604, U.S.A. • TELEPHONE: 312-427-5051

INTERNATIONAL DIVISION SAME ADDRESS

Circle 5 on reader service card

RAILWAY AGE

May 30, 1966 • Vol. 160, No. 21

THIS WEEK

17 Competition will pick a winner

Right now the money is in conventional piggyback—but don't count containerization out.

22 Rate questions surge to the fore

Costs rise along with volume—and experts are calling for more realistic rate-making.

39 More tips for freight salesmen

Shippers give further suggestions as to how freight selling techniques can be improved.

44 SAL'S forestry program pays big dividends

Seaboard's annual "picnics in the woods" play an important role in building up the economy of the territory it serves.

69 Anti-L&D war gets once-over at Denver

Favorable factors in the battle against loss and damage were outlined at the recent Freight Claim Division meeting.

70 Radioactive Spanish soil rides ACL to burial ground

Material contaminated by a hydrogen bomber crash in Spain was shipped to South Carolina for disposal.

114 The Action Page—Are recession policies perishable?

It may no longer be true that railroads are the first ones to be hurt by a recession in general business activity.

DEPARTMENTS

71 As the Editor Sees It
76 Current Publications
108 Dividends Declared
109 Freight Carloadings
42 Ideas for Better Shipping
100 Industrial Traffic
108 Letters from Readers
40 Lines on Labor
8 Monday Morning Report
109 New Equipment
74 New Products Report
94 People in the News
64 Revenues and Expenses
7 Short and Significant
56 Supply Trade
114 The Action Page
39 Traffic Poll
24 Watching Washington
11 Week at a Glance
110 You Ought to Know

Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.
Western Editorial Offices
Chicago, Ill. 60604, 14 E. Jackson Blvd.

ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
JOHN D. MITROS: Western Editor

Managing Editor: Fred C. Miles
Traffic-Transportation: Gardner C. Hudson
News Editor: Edward F. Donlon
Transit Editor: Joseph Asher
Associate Editor: James P. Shuman
Mechanical:
C. L. Combes F. N. Houser
Art Director: Joel Petrower
Art Assistant: Marvin Friedman
Editorial Assistant: June Meyer
Director of Research: H. B. Bolander
Librarian: Edith C. Stone
Production Manager: Fred B. Hecht

Chicago
Senior Editor: Gus Welty
Mechanical: Norman E. Gillespie
Engineering:
M. H. Dick R. E. Dove
Signaling & Communications:
Robert W. McKnight
Editorial Assistant: Wanda Brown

Washington, D.C. 20004, National Press Bldg.
Washington Editor: Walter J. Taft

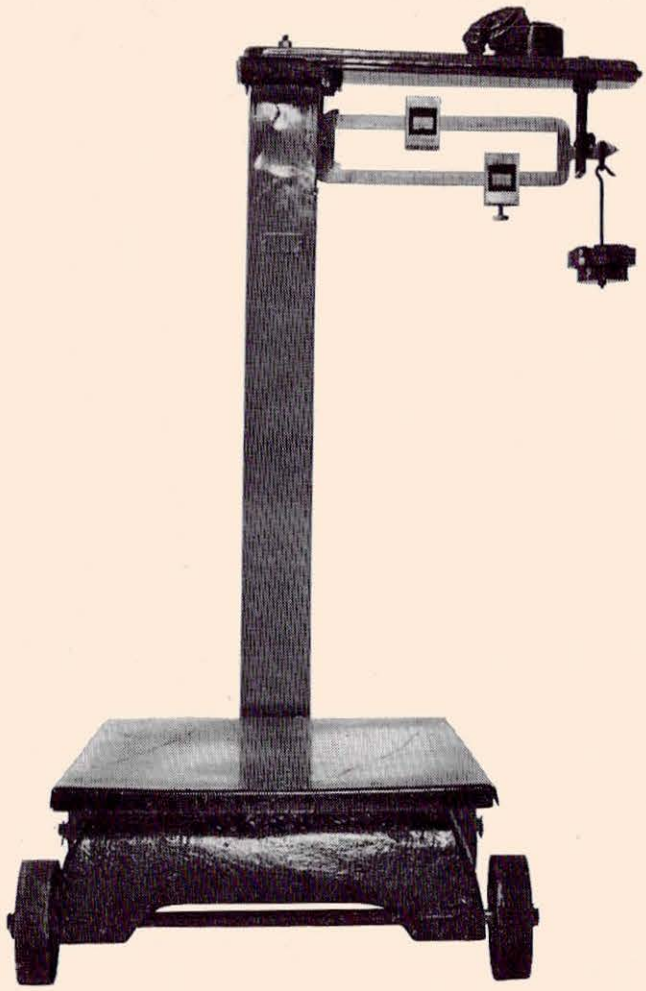
London, W.C. 2, England, 4, Talbot House; 98 St. Martin's Lane
International Editors:
Geoffrey Wilson John Levett
GEORGE DUSENBURY: Editorial Director

C. J. FISHER: Vice President—Sales, New York

For list of sales offices, see index page

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published weekly ((except for four issues combining two-in-one) by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn.
Railroad employees' subscription rate: U. S. possessions, Canada and Mexico, $6 one year, $8 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address and correspondence concerning them to Subscription Dept., Railway Age, Emmett St., Bristol, Conn. 06011.
Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.; John Rogers, Circulation Manager, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO EMMETT ST., BRISTOL, CONN. 06011.
Printed at the Wilson H. Lee Co., Orange, Conn. 06477. Second-class postage paid at Orange, Conn. and at additional mailing offices.



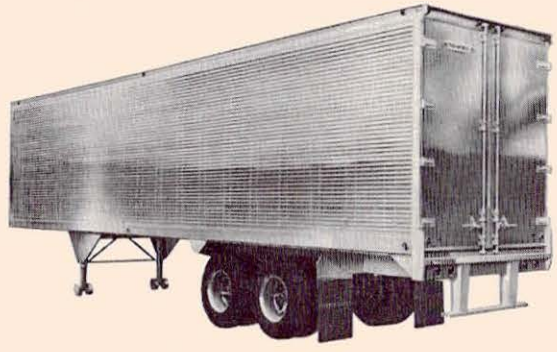
CAPACITY
FOR HOLDING UP WEIGHT

The new landing gear on our Trailmobile van is strong enough to meet the most demanding needs. And it's designed to fit piggyback rail cars.

It has 60,000 lb. of lifting capacity and 100,000 lb. static load capacity. Extra-long travel of its legs helps lift the trailer to all standard 5th wheel heights. And the triangular mounting bracket makes it stronger — spreads loads over six crossmembers in tandem vans.

We design and build great capacity into every part of a Trailmobile. Like the new loop-frame construction that lets you haul loads without wracking. The massive rear end that shrugs off dock blows. The way we rivet the roof on to keep out water.

They're all part of our capacity for building trailers and containers that help you haul big loads at less cost for more profit.



TRAILMOBILE MEANS CAPACITY

TRAILMOBILE

a division of Pullman Incorporated

Circle 6 on reader service card

SHORT AND SIGNIFICANT

DeVine gets top post at C&O-B&O

Directors of the Chesapeake & Ohio and Baltimore & Ohio last week elected C&O-B&O President Gregory S. DeVine to the additional position of chief executive officer of both railroads. He succeeds Walter J. Tuohy who died May 12. DeVine, a former newspaperman and a veteran of 30 years in the coal industry, joined C&O in 1957 as vice president in charge of coal traffic and development. He is also a director of the railroads. Directors also elected John E. Kusik to vice chairman of the board of C&O. He is also chairman of the finance committee of C&O's board, and senior vice president and a director of B&O.

●

Southern-Frisco arrange talks on merger

Officers of the Southern and the St. Louis-San Francisco have arranged to meet to discuss the possibility of merging or consolidating the two railroads. Southern President D. W. Brosnan said the Southern has already completed "intensive joint studies" with the Frisco in the matter. Southern is a 10,413-mile system, Frisco has some 5,000 miles of routes. Earlier this month, the Interstate Commerce Commission gave the Southern permission to acquire direct control of the Georgia Northern, and the Georgia, Ashburn, Sylvester & Camilla. In 1963, Southern took control of the Central of Georgia and the Georgia & Florida.

●

New York-Boston high-speed train tests a possibility

Two train sets of three articulated cars each will be delivered to the New Haven later this year for high-speed tests between Providence and Boston. Now, the Commerce Department, sponsor of the demonstration, and the State of Connecticut are considering extending the tests the entire 230-mile length of the New Haven's shoreline route between New York and Boston. What's prompting the possible test extension are these two developments: A new self-banking suspension system which, if it meets engineering expectations, will permit faster speeds on curves; and the Connecticut Transportation Authority's decision to commit $500,000 to the project for upgrading the rail bed and signalling on the line west of Providence.

●

Railroad employment total down from year ago

U.S. railroads had a total of 626,233 employees as of mid-April—down 1.73% from the number employed in April 1965, according to tabulations of the ICC's Bureau of Accounts. The mid-April total is also down 0.69% from the employment total in March. The largest decline, by category, was among employees in transportation (other than train, engine and yard). The total there was off 6.59% from last year. There was a 2.51% gain in the number of executives, officials and staff assistants employed.

●

Soo president warns of government rein on business

There's an intensified trend toward extensive regulation of all business by government—a trend that could set the stage for public ownership of business, Soo President Leonard H. Murray said last week. He warned that all businessmen might someday find themselves in the kind of situation railroaders are in today—with government agencies exercising as much discretionary power as management or more—unless they act promptly to counter current trends in public thought. "We must decide how far we reasonably can proceed with such regulation and still preserve for American business an effective and productive climate," Murray added.

MONDAY MORNING REPORT

Opportunity knocks for railroad admen

Just a few days from now, railroad advertising managers will be getting together in Denver for their annual review of the state of the advertising art in transportation. And this year, more than in some past years, they should be a relatively optimistic bunch. There is, generally, a lot to be optimistic about. Railroad advertising is getting better and better. Railroad prospects are far brighter than they were just a few years ago. And the problem that the ad managers face as usual lies in applying the hard or soft sell (whichever's required) to get top level OK to tell the railroad story with ever increasing effectiveness.

Railroad ads dull? Not on your life

In years past, railroad advertising all too often had a quality which some observers described as almost incredible dullness. For several reasons, this isn't true today. First and foremost, there's more to talk about. Railroads have, in a sense, rediscovered glamor in an awesome parade of technological developments, to be sure, and also in break with tradition improvements in managerial practices and techniques. Then there's the matter of competitive strength. Railroads are improved, and so is their advertising. But the fact is that all transportation and virtually all transportation advertising is better. And so in advertising, as in every other phase of railroad operations, management has to be sure that it's the best foot that's being thrust out for public viewing.

Quality's up but how about quantity?

Most roads do seem to be boosting their advertising quality, if not the quantity. Roads such as Western Pacific and Reading have gotten good mileage out of somewhat off-beat promotions. Pennsylvania made a gallant and imaginative effort on behalf of the "Broadway." Burlington is heading into a new campaign which promises to be a real attention-getter. Many roads are plugging hard at the marketing and equipment improvement aspects of the business. And the ad men who are doing things are confident that what they're doing will pay off.

Always, there's a problem

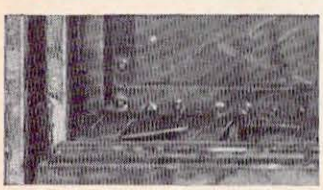
So everything should be bright and shining, as the members of the Association of Railroad Advertising Managers open their 1966 sessions. But there are a few worrisome angles to consider and one of them, paradoxically, could spring from the very fact that railroads today are doing well. This of course, is related to the old (and generally discredited) idea that "business is terrific, so why advertise?" And it has about it just enough of a veneer of logic to make it dangerous.

Where to aim ideas toward the future

Professionals in the advertising business regard this kind of "good times cutback" thinking as fallacious and somewhat parallel to the laying off of half the sales force just because the plant is running at capacity. Nobody does that. Instead, salesmen rechannel their efforts into servicing and into selling futures. In similar fashion, if necessary, advertising can be rechanneled to meet the needs of the times and to extend the scope of things talked about. The pros in the business are well aware that railroads, as a group, don't really spend much on advertising. Their concern is to have something valid to say, to say it well and to say it in an organized, consistent fashion. Railroads today have the story to tell. Ad men are telling it well. And managements of today owe it to the railroads of tomorrow to make sure that the story is told in organized, consistent and dramatic style.

Go stand in the corner!

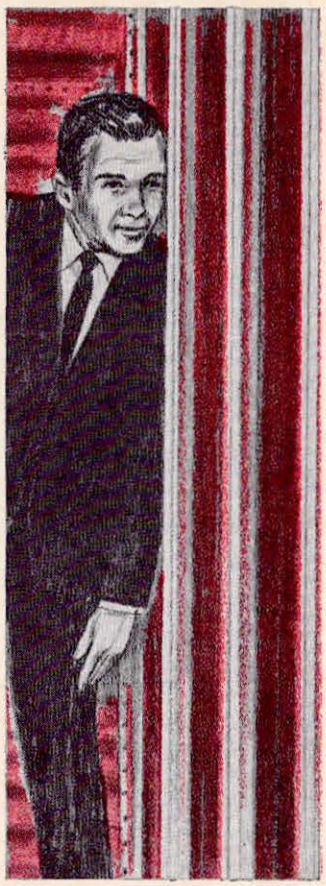
That's the place to judge the build of a box car. That's where everything comes together . . . where you can spot the squareness, straightness, strength and workmanship. Look closely.

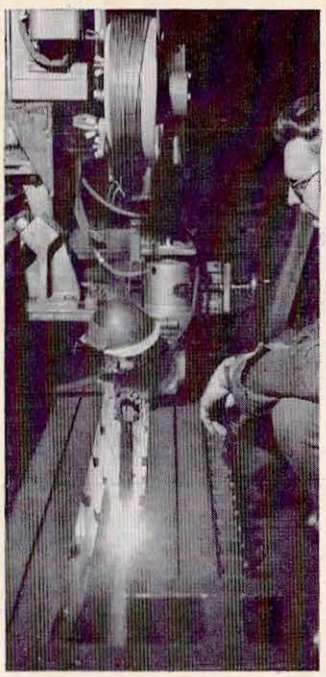


Right in front of your eyes, sides are riveted to the ends. Any extra rivet holes cost you money. More so if your men drilled 'em when the originals didn't line up.

Peek past your feet at the welded underframe. Stringers straight and square to the sill? How 'bout the center sill weld? A submerged arc doesn't need any joint preparation. Costs less for this reason, but is strong and smooth . . . gives 80-100% penetration.

Now stick your head way back in the corner and ease your eyes along the side. Notice welding stress patterns are kept to a minimum. Berwick engineered automatic, low-heat burn-through equipment to eliminate 'em. This equipment also eliminated the cost of welding both sides. Check the special steel plate at the door opening.





Strength, straightness, rigidity and precision . . . that's what you'll see in a good car component. That's also first and forever with our "old-style" metal craftsmen at Berwick. Pride runs deep in fourth generation car builders. Armed with new methods and equipment we're more than ready to take a cut at the competition.

Next time you're after bids on car components, let us back you into a corner of a Berwick box car and show off our stuff. Phone or write.

Berwick Forge and Fabricating Corporation

BERWICK, PENNSYLVANIA

Chicago office: 80 East Jackson Blvd.

Circle 7 on reader service card

Does "5" spell innovation?

You bet it does. Stromberg-Carlson has invented and produced 5 new types of communication systems for railroads—that's innovation.

1. Message Circuit Dialing . . . First dramatic step forward in providing automatic dial communication to way stations . . . eliminates costly and time-consuming operator handling.

2. Dispatcher Tone Signaling . . . Major improvement in instant communications with your key people responsible for train operation.

3. 4-Wire Switching . . . The first system to provide unlimited tandem switching with maximum circuit efficiency and dramatically upgrade quality of service . . . permits you to communicate quickly with any area of your operation.

4. S-C RR Switching System Control . . . The "brain" that can be added to your communication system . . . to integrate your entire system into the most efficient network possible . . . to cut operating time to a minimum with system-wide uniform directory numbering and multiple routing.

5. Railroad PABX Systems . . . The first PABX systems with features designed specifically to meet the needs of railroad communications.

For details on the equipment and the backup services we offer, call or write Industrial Sales Department, 128 Carlson Road, Rochester, N. Y. 14603. (716) 482-2200.

STROMBERG-CARLSON

A Subsidiary of General Dynamics

Circle 8 on reader service card

RAILWAY AGE
WEEKLY

MAY 30, 1966

WEEK AT A GLANCE

The FEC strike: Decision from the Supreme Court . . .

By a 7-1 decision, the U.S. Supreme Court has made a little clearer just what a railroad may and may not do in attempting to operate under strike conditions. The ruling came in a case involving the Florida East Coast and the non-ops. And it says, in effect, that a carrier "has the duty to make all reasonable efforts to continue its operations during a strike" and that it may make "reasonably necessary" changes in terms and conditions of work in connection with that effort. The Court majority, however, took a firm position that "any power to change or revise the basic collective agreement must be closely confined and supervised . . . the carrier must respect the continuing status of the collective agreement and make only those changes as are truly necessary in light of the inexperience and lack of training of the new labor force or the lesser number of employees available for the continued operation. The collective agreement remains the norm; the burden is on the carrier to show the need for any alteration of it." The lone dissent came from Justice White. The majority opinion, he declared, "is very close to a judgment that there shall be no strikes in the transportation business, a judgment which Congress rejected in drafting the Railway Labor Act." It was not anticipated, he said, "that a struck railroad could invoke the aid of the court to make changes in a contract which Congress had forbidden it to make. Nor did Congress anticipate what is in effect a new type of railroad receivership designed to last as long as necessary to blunt the effectiveness of a strike which the act left the union free to call," Justice White added.

. . . and a confusing situation at Jacksonville

Things were much less cut and dried, legally speaking, around Jacksonville, Fla. last week. Pickets had appeared in the terminal area in late April—and that touched off a series of court cases that hadn't been settled as of the middle of last week. Atlantic Coast Line, Seaboard Air Line and Jacksonville Terminal first obtained a temporary order to restrain picketing from a U.S. District judge in Jacksonville. But then the operating organizations got a stay of the order from appellate-court judges and, after a hearing, the U.S. Court of Appeals at Atlanta ruled that picketing could not be enjoined under the Norris-LaGuardia Act. The railroads, last week, were preparing an appeal to the Supreme Court. But meanwhile, Jacksonville Terminal petitioned a state court for relief. The unions countered with a request that federal court assume jurisdiction. A hearing on the issue was set for May 26. By agreement of counsel, picketing has been halted until a ruling in the case is obtained.

Corridor studies focus on rail-road mix

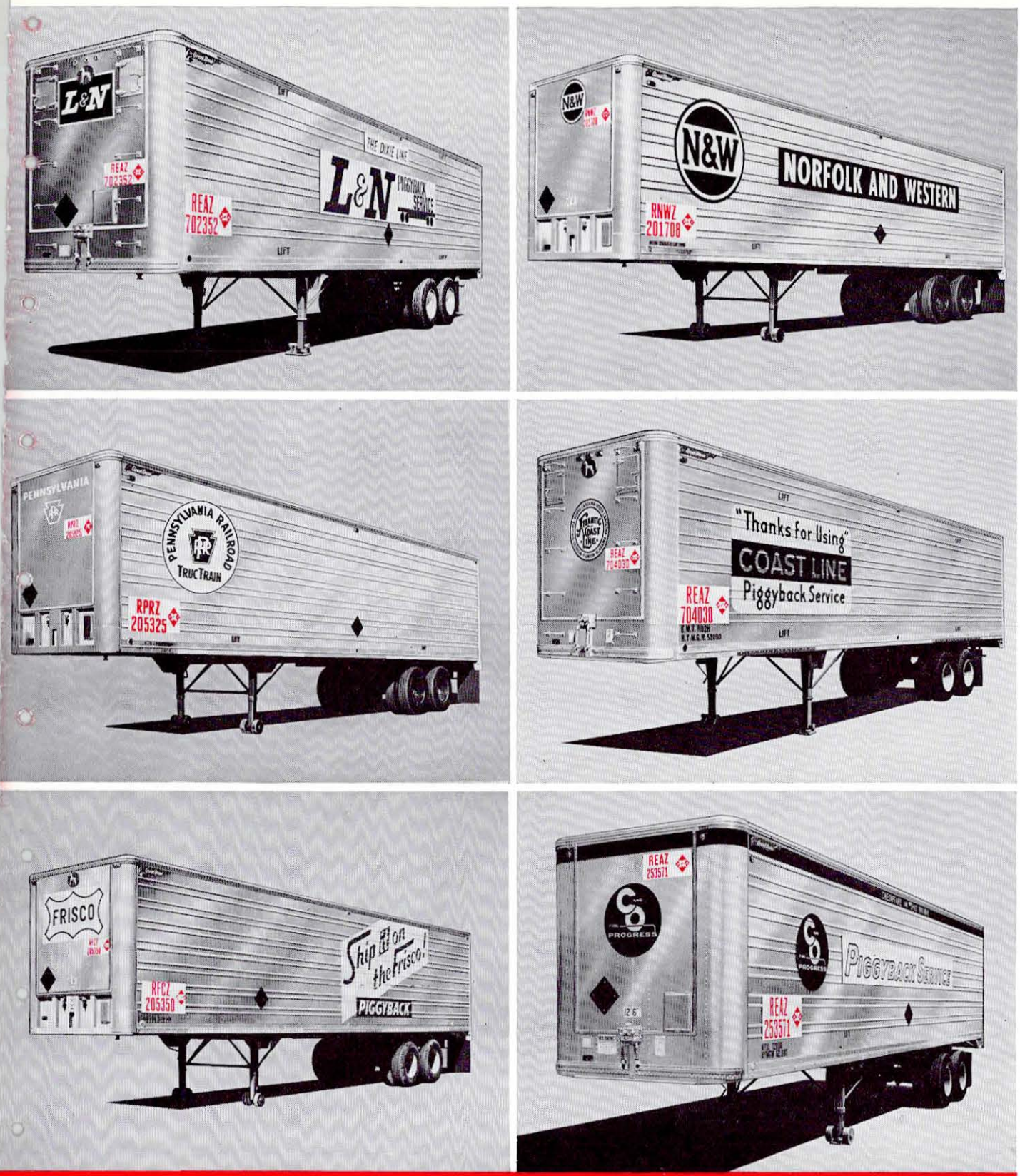
The automobile is here to stay, and the Department of Commerce's Northeast Corridor Demonstration projects will take full account of the fact. According to Dr. Robert Nelson, director of the program, suburban passenger stations would be put up at junction points of the PRR and some main highways in the corridor. With sufficient parking space, Nelson noted, "This could bring back to rail service many travelers whose suburban location presently dictates highway use for short and intermediate travel."

He mentioned another proposal—more tentative—for an auto-rail test service: a demonstration with auto-carrying passenger cars sometime next year between Jacksonville, Fla. and Washington, D.C. A new type of rail passenger car would be designed to accommodate both the passenger and his auto; ramps would bring eight autos onto the car on two levels, the railcar itself would be air-conditioned, and equipped with rest rooms and maybe vending machines. Trip time would be 12 hours—a big saving over road travel time.

First step is a market survey of the volume of automobile traffic in the area. If the volume seems to justify the test, Commerce will consider design proposals for such rail cars. Said Nelson: "It may offer prospects of reestablishing the railroads in long-haul passenger service."

REALCO has some good things going for a lot of railroads

You may know that REA Leasing Corp. has been adding Great Dane trailers to the piggyback fleets of a growing number of railroads for several years. These dry cargo vans are built to REA Leasing specifications for its National Railroad Trailer Pool. For others, insulated produce vans, frozen food haulers, meat rail trailers, and demountable containers have been custom built. The engineering staff at Great Dane has a great deal of experience in designing special trailers to meet the specific needs of REALCO customers. REALCO not only requires that specifications be met, but also requires first quality equipment. With Great Dane, "Quality is our product."



Great Dane Trailers

SAVANNAH, GEORGIA

Quality is our product

Circle 9 on reader service card

How do you give distribution a production-line efficiency?

By logistic planning and new transport technologies.

Behind the concept of business logistics is a new kind of transport system with new techniques and new flexibilities. One that can truly act as an extension of your production line.

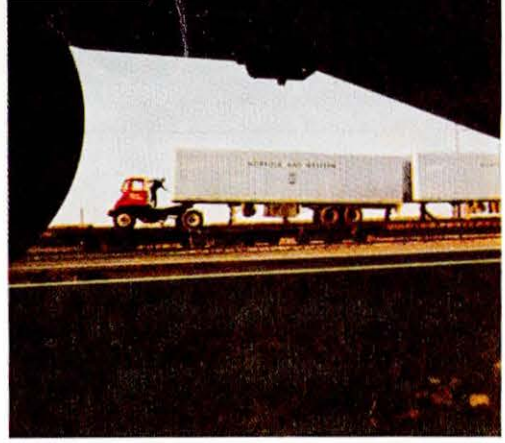
The three-story automobile carriers are beautiful examples of this forward thinking. From triple-level loading platforms, automobiles can be driven directly aboard N&W

railway cars. In other industries, production is scheduled so that freight cars can act as warehouses and integral parts of a production line.

Special cars designed for the special needs of customers. Unit trains and piggyback trains. Schools to train traffic experts for faster response and more imaginative solutions to your problems. This is the kind of contemporary transport planning that makes possible the logistic approach to physical distribution . . . the movement of inbound material and outbound products with production-line efficiency.

At N&W, we stand ready to help you put this kind of planning to work in your business.

Norfolk & Western Railway

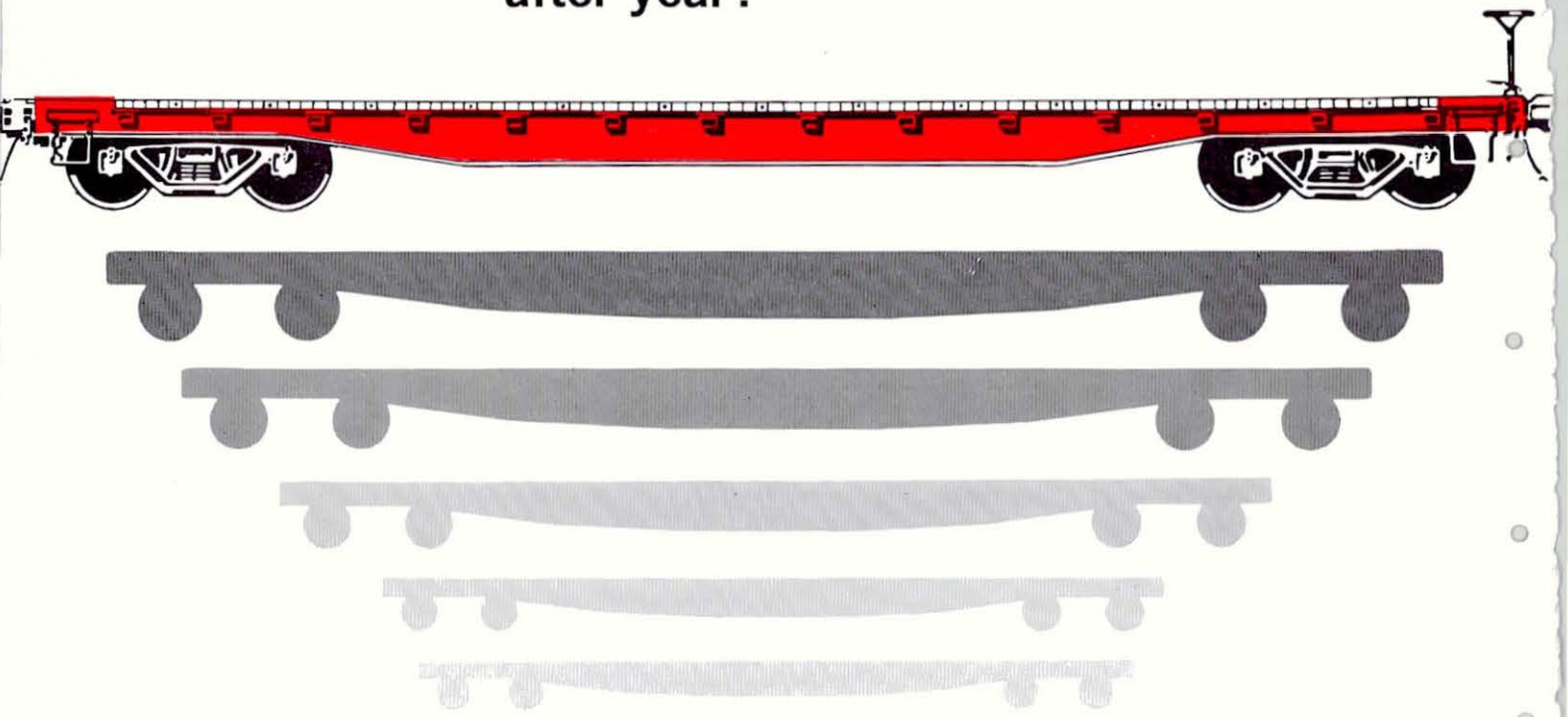


Every GSI Flat Car Looks Forward to a Long, Useful Life

GSI flats last indefinitely, providing reliable service long after their initial cost has been written off. The one-piece cast steel underframes give you unlimited service that is maintenance-free. Minimum down-time assures maximum revenue.

Added advantage: Interlocking end posts convert GSI flat cars for bulkhead service.

Any wonder why GSI flats are the choice of so many railroads year after year?



GSI
CASTINGS DIVISION

GENERAL STEEL INDUSTRIES INC.
GRANITE CITY, ILL. • PHILADELPHIA, PA. • SAN FRANCISCO, CALIF.
Circle 11 on reader service card

TOFC or COFC?

Competition will pick a winner

Containerization is just around the corner. Or is it? And if it is, how far away is the corner which containerization has been "just around," now, for a number of years?

All the signposts point to two things: A steady but slow growth for container traffic, mostly in specialized applications; and a continuation of the spectacular development of more-or-less conventional piggyback.

● **How change may come.** The balance between TOFC and COFC can't and won't be changed overnight. But it could be changed—if enough concerted and concentrated pressures can be generated. The competition-between-concepts boils down to that: How many people get interested in COFC, and how interested they get.

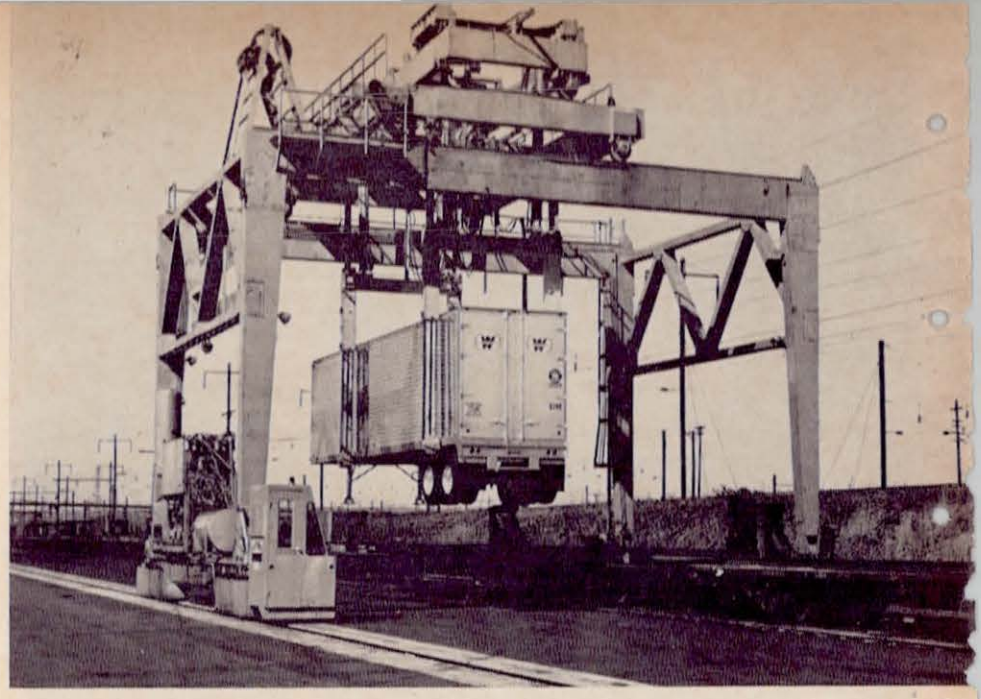
Basically, of course, the name of the game is money, and right now the dollars—the investment and the revenues—are in piggyback. In transportation,

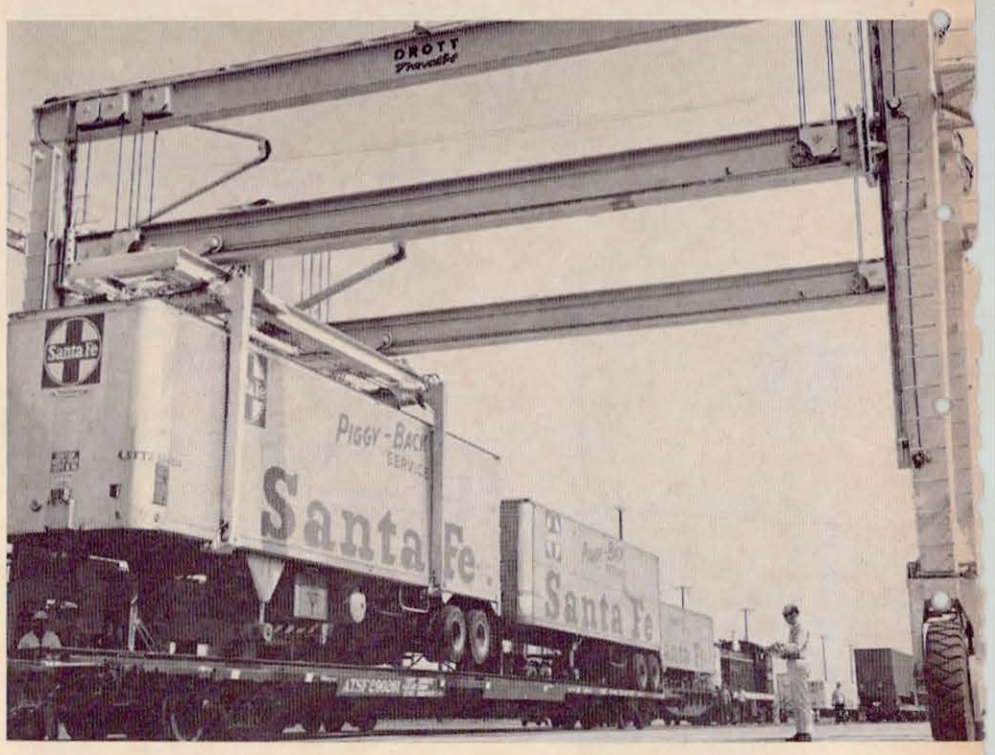
too, the key to winning the game often lies in the art of accomplishing the possible. Expediency, some would call it—but regardless of how it's described the fact remains that five to 10 years ago, when most roads were edging into coordinated rail-highway services, the simplest and quickest and least costly way to get moving was to tie down a conventional highway trailer on a flat car. This "instant piggyback" has, of course, been raised to a far higher degree of sophistication today. But the basic concept is the same.

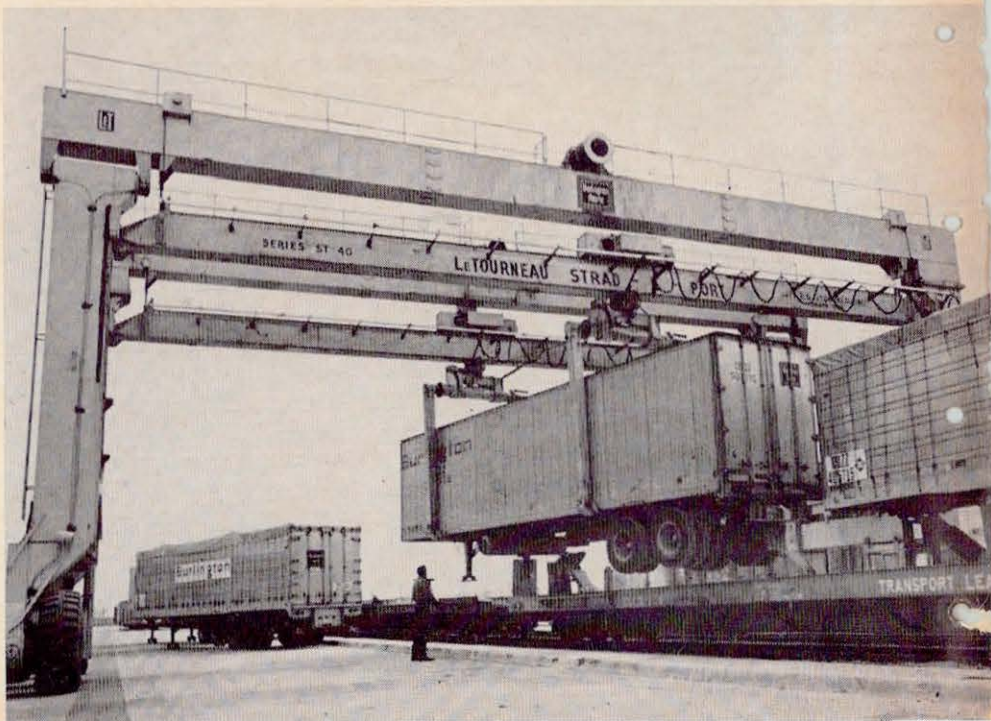
Any large-scale conversion to containerization for domestic traffic now would require a substantial investment with, perhaps, a low initial return. And most railroad men, at this point, just don't see a need for that kind of investment.

- **Stateside and overseas.** This reasoning applies to discussions of domestic container business only. Even the least pro-container of traffic men do regard the container as a potentially potent weapon in building rail movement of import-export freight.

Capacity keeps going up, operating-cycle time keeps going down as gantry-crane manufacturers tackle TOFC/COFC terminal problems. These are three of the newest units in service—Southern Iron & Engineering's unit on the PRR at Kearny, N.J.; a Drott crane on Santa Fe at East Los Angeles; and a two-track crane by R. G. LeTourneau on Burlington at Cicero, Ill.







For the active advocates of containerization—a relatively small group that includes New York Central, Southern, REA Express, a handful of suppliers and shippers—this doesn't seem to offer much hope. But there is definitely hope. It seems to lie mostly in the willingness, even eagernes, of a number of railroad traffic men to work with a flat car that will easily handle virtually any trailer-container loading and to improve terminal facilities in a way that will permit TOFC/COFC to develop efficiently. That last point gets special stress—because no system, however

sophisticated or widely adopted, will be any good if the freight is delayed because loading and unloading operations just can't be handled fast enough.

● **How about equipment?** Northern Pacific President Robert S. Macfarlane is outspoken on the subject—with three principal equipment recommendations:

—Standardization of TOFC car-deck height to expedite loading and unloading operations at circus-type ramps and to reduce equipment damage.

—Development of an all-purpose flat car that can be used for both trailers and containers of various sizes, with self-contained container tie-down equipment that can be easily and simply operated by a single employee.

—Development of a side-unloading system for standard trailers and containers "that would be faster as well as less cumbersome and expenive than present large overhead lifts and that would eliminate the specialized equipment required on side-unloading systems currently in use. The system should be in a price range that would make it economically feasible for use at low-volume stations as well as at high-volume terminals."

● **On-off automation?** David O. Mathews, president of piggyback-strong Chicago & Eastern Illinois, takes it a step further. Equipment modifications which would be helpful in improving business and increasing profits, he says, "should include research looking toward the development of practical methods of volume automatic loading and unloading of trailers and containers."

C. T. Groton, Jr., general manager-merchandise operations for Missouri Pacific System, approaches the problem from a slightly different slant. Because piggyback is motor-carrier oriented and because state truck-dimension regulations are changing, "it is necessary to maintain a continuous program designed to develop new types of rail piggyback equipment. To date, we believe the program has been successful. We have cars, designed to transport trailers 8 1/2 feet wide, if and when they're approved for highway use. And the four-stanchion car is ready for double-bottom-trailer use."

MoPac officers believe future needs will be met through this kind of continuous-design work. And high on the list of items for future development: "An economical, so-called all-purpose car for handling combinations of various-size containers and trailers."

Much of the thinking on terminal operations and terminal costs concerns equipment—but there are also a number of railroad officers giving a hard eye to two other areas that may need more attention: Personnel and promotion.

● **Cost and profit.** Burlington puts the problem in blunt terms: "Today's terminal and accessorial costs can run very high, even to the point of limiting the rise of TOFC traffic. In some cases, we have found that terminal pick-up-and-delivery costs exceed our gross revenue. Flexibility and maximum efficiency to produce the lowest possible terminal cost is essential if TOFC is to be handled on a profitable basis."

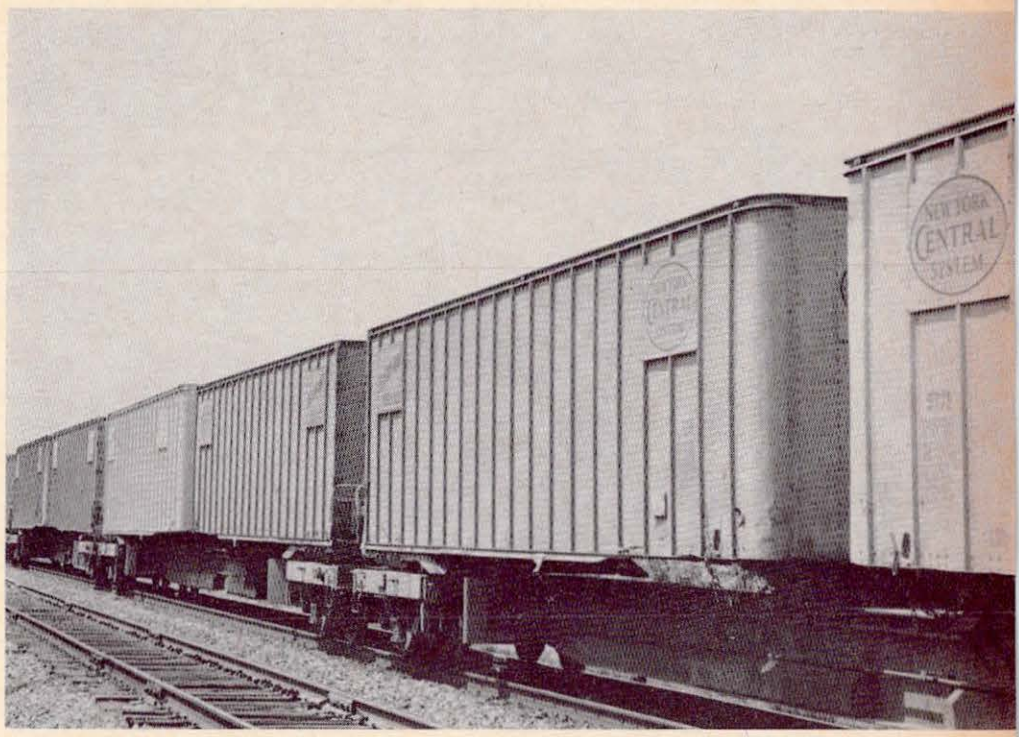
Frisco, long an active road in the area of employee training, sees the problem as an educational one, in part. In its effort to keep costs in line, says President J. E. Gilliland, "we feel it is necessary to increase and educate supervision at terminals—and this education should extend also to drayage contractors so that they provide drivers capable of maximum efficiency in delivering and pickup of trailers."

D. F. Jones, director of Louisville & Nashville's piggyback department, also cites the advantages of superior supervision, for more strenuous policing of facilities and switching services.

● **Everybody's job.** NP President Macfarlane actually brings everybody into the picture. Rapid growth of TOFC, he declares, "has outpaced our terminal facilities, and substantial sums may have to be expended on improved terminals if we are to hold our unit terminal costs in line. . . . There is need for closer internal communication and/or coordination between the operating, sales and rate departments to assure proper pricing of PU&D, detention and other terminal service that may be offered to shippers."

This touches close to a point noted by several other chief executives: Ways in which TOFC development can be steered in order to let each part of the job be done by the people who can do it best.

C&EI President Mathews, for example, believes the promotion of Plans I, II 1/2, III and V offers the most promise for boosting TOFC traffic and revenues to new peaks: "These plans coordinate the services of various modes of transportation . . . by permitting them to perform the services or portions of service for which they are best fitted. This permits the railroads to concentrate on performing those functions best suited to their capacities—that is, the hauling of multiple shipments with minimal crews over steel rights-of-way—and thus to maximize their revenues." Development of these four plans, Mathews concludes, "leaves to experts in their particular fields the performance for which they are best qualified and for which their intra- and inter-competitive relationships will assure the provision of service at reasonable cost levels."



NYC FLEXI-VAN SERVICE is a big item in the road's booming traffic picture.

Frisco President Gilliland also hails the extended coverage of ramp-to-ramp rates under Plans II 1/2 and III—which, he says, will enable the TOFC customer to make even greater savings in transportation costs by relieving railroads of the responsibility and expense of drayage.

● **Over the container.** Terminal problems, of course, will exist if the coordinated services continue to grow as trailer-on-flat-car operations, if containerization enters a boom period, if one or the other is dominant or if the two become of equal importance.

Now, what are non-container roads

—and those whose container operations are a minor part of the total—thinking and doing with regard to the wheel-less box? Answer: Doing not very much—but thinking quite a bit.

One of a few roads in the West to experiment rather extensively with container movement is Burlington. And, while there's little comment regarding domestic service, CB&Q is "continuing to expand container operations in import-export traffic, where the potential, we believe, is unlimited."

On Union Pacific, Vice President-Traffic J. R. MacAnally sees rapid growth in the use of containers in overseas movement, with the construction of all-container ships and with the modification of certain bulk-handling vessels for container traffic. UP has participated in such moves; Pacific Fruit Express, a UP-Southern Pacific subsidiary, has provided containers for the service. But, like many traffic officers, MacAnally is more cautious in commenting on domestic possibilities: "It is believed that use of containers for movements between large cities will also continue to grow," he notes—but because UP doesn't operate locally between a great number of large cities, the road has little to say at this point on the over-all question of domestic traffic growth.

● **Two votes for TOFC.** In the East, two rather firm opinions come from Pennsylvania and Seaboard Air Line.

Henry W. Large, PRR's vice president-traffic, says that "except for special services, such as U.S. mail, we do not believe that containerization will supplant conventional TOFC operations. Containerization is being actively promoted on water-borne traffic, but the inland movement of containers in rail service will be largely under conventional TOFC operations—meaning that the containers will be adapted to TOFC by the carriage of containers and bogies in rail movement."

Seaboard agrees. As Vice President-Traffic H. P. Toxey puts it, "we feel that, generally speaking, shippers and receivers are not interested in how the railroads move their traffic, so long as it arrives at destination in excellent condition and on time. Therefore, we are of the opinion that containerization will not become widespread for domestic traffic, due mainly to the greater initial costs to the railroads of handling containerized traffic." But as for international traffic via container? SAL believes that "shipments will definitely require this service. We are firmly of the opinion that the growth potential here is tremendous—and we are looking at this situation very closely."

Finally, one of the strongest pro-container statements comes from a road which is not at present deeply involved in containerization—Reading.

TRAINLOAD OF TRAILERS on a Santa Fe freight train is shown rounding a sweeping

Donald M. Kerr, manager of corporate planning, told a shipper group not long ago that the container will be the key to transportation-mode coordination which will combine the advantages of land, sea and air movement and give shippers single-agency, single-bill-of-lading service.

● **Problems, but** . . . The Reading officer conceded that there are definite obstacles to this kind of development. But he wasn't pessimistic. One of the major problems, Kerr said, is in interchange: "Today, there are more than 26,000 marine-type containers and approximately 8,000 rail and/or highway containers in service. . . . But only about 1,200 may be physically interchanged from one system to another through the use of automatic handling equipment."

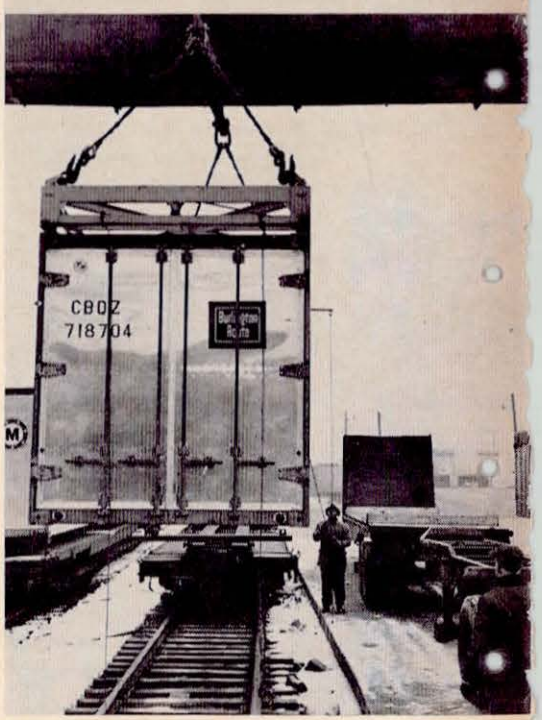
Agreement on container specifications through the American Standards Association and the International Standard Organization may help in this area, Kerr indicated, as may national and international agreements on corner fittings for the boxes.

Standardization, however, is only one problem—and Reading's corporate-planning manager added quite a few more to the list:

—Legal or regulatory obstacles created by reason of the variety of regulatory agencies involved.

—Financial problems of creating a container pool, when a standard 20-foot container "will cost, in the United States, approximately $2,000 and with maintenance, operating costs and other factors chargeable . . . must earn $3 or more per day."

—The difficulty of providing balanced movement to eliminate one-way-empty hauls.



CONTAINERS in Burlington's Cicero yard are quickly transferred from flat car to truck chassis for city delivery.

—Labor attitudes of resistance to container use as a form of automation.

—The difficulty of establishing a rate-making concept based on cost of handling the containers rather than on the value of the cargo carried.

Kerr remains confident that the problems can be overcome—because containers make possible "a lower cost of total transportation, which has increasing benefits to all concerned." And, he

curve in the vicinity of Tehachapi, Calif.

contends, as carriers already using containers enjoy increasingly successful operations, other carriers will be influenced to join the parade.

● **Agreement—up to a point.** At this time, most railroad men would be inclined to agree with Kerr's assessment of containerization as a field with its problems—even though many of today's traffic men might not share his optimism that all the barriers can be lowered and that containerization will, indeed, blossom forth.

Just last week, however, a new attack was launched on one of the problems cited—the matter of creation of a container pool. About five years ago, REA Express created REALCO, and REALCO set up a national railroad trailer pool which now has more than 70 members and a trailer fleet of more than 7,200 units. Now, the REA subsidiary is working with Steadman Industries Ltd. of Canada on a container-chassis leasing program. The aim, as REALCO puts it, is "development of a coordinated rail-water container system. The objective is to carry forward into the container field the full-service concept presently extended" to members of the trailer pool for domestic piggyback operations.

This is one of a number of container systems that have been developed—and that phrase "one of a number" is an important one in a situation where suppliers, often as not, find themselves as the men-in-the-middle in the TOFC/COFC debate.

● **The suppliers' puzzle.** They, like others in the transportation business, have been hearing for years about how containerization would be the thing. There are impressive studies which boost the concept. Certainly, no more articulate advocates than New York Central President Alfred E. Perlman and Southern President D. W. Brosnan could be found to champion a cause. REA Express, which has long experimented with container operations, is expanding its leasing operations to include containers, and other leasing organizations are giving the field close attention. Suppliers themselves have invested thousands of dollars in development—of boxes, tie-down devices, cradles, versatile flat cars, cranes and other loading-unloading systems. Containership operators, port authorities and shippers deeply involved in overseas traffic have added the weight of their opinions.

But with just a few exceptions, domestic container operations are still crawling along — while conventional piggyback has gone from next-to-nothing to a million-carload-a-year business in a decade.

Of a number of railroad marketing men surveyed in a spot-check, only one predicts faster growth for containerization than for TOFC—and even he has a qualifying factor to throw in. "The problem with predictions of this sort," he says, "is in getting everyone to define containerization in the same terms. If it means units of transportation smaller than a conventional trailer, then I think my prediction definitely holds true." But if the definition involves growth of elaborate systems for handling trailer-size boxes? Then there's no prediction, "because of the very special problems inherent in such systems."

● **The trials go on.** So far as the suppliers are concerned, they're not sure which way to jump—though major carbuilders are again involved in the quest for the all-around "compatible" car. Some of them have been down this road before—and, while they've turned out cars that will do quite a few things and while some of these cars are doing a good job in service, the market hasn't jelled.

This pressure on suppliers is nothing particularly new—but in this case there seems to be more than the usual amount of uncertainty connected with it.

● **Where to begin?** Not long ago, a sizable number of suppliers' representatives were talking about the twin topics of piggyback and containerization—and perhaps the biggest problem they had was in trying to figure out where to start and what, if anything, to expect from the future.

They discussed standards—and, as one scoffed, the supposedly agreed-upon container standards "are becoming less standard every day." They also debated the enthusiasm of the ship lines and the relative lack of interest displayed by railroads. And, while there was hardly a consensus, nobody argued much against the theory that competition and economics forced the ship operators into their pro-container position—and that the same competitive and economic forces are yet to be felt in the railroad industry.

If containerization is to grow, then, it may be that the international trade will have to serve as a showcase. If overseas traffic develops on a large scale, railroads will have to become involved—the business moving to and from inland points will be too much to pass up. And if this happens, it could follow that carriers and shippers alike —in gaining experience with the container business—may find applications which will make containerization a thing to be reckoned with in domestic operations. But at this point—given the continuing growth of conventional piggyback and conceding the lack of apparent interest on the part of most domestic shippers—there seems little likelihood that containerization will go very far or very fast without the impetus of growth in the import-export trade.

● **A look into the terminals.** One other possible area of breakthrough might develop—in the terminals. If handling systems for TOFC fail to keep pace with the predicted growth in conventional operations, and if something akin to an automatic container loading-unloading system is developed, the equations could suddenly change. Then, it could be piggyback that dawdles along while containerization bounds ahead. Not likely? Perhaps —but then, who, a few years ago, would have thought much about 6,000-hp diesel-electrics or 86 1/2-foot box cars?

PIGGYBACK—WHAT'S AHEAD

Rate questions keep surging to the fore

- **TOFC isn't all gravy. Costs keep going up as volume rises.**
- **Experts are calling for a realistic approach to rate-making.**

With piggyback today, the only question seems to be: How high is up?

Over the past 10 years, total carloadings have sagged, staggered and finally headed upward. Ton-miles have followed a similar pattern, except that the recovery since 1961 has been more spectacular. But piggyback has gone nowhere but up, and with the exception of one year—when automobile piggyback turned into auto-rack traffic—the increase in loadings has been steady. With an ever-increasing base to build upon, the rate of gain gets smaller—but it's still impressive in the absolute terms of carloadings. And the rate, about 10% so far in 1966, is nothing to be depressed about—even if it isn't quite up to the 15% posted for last year.

● **The gains are impressive.** One significant point may be that many roads —and not all of them late-comers to TOFC — were reporting gains well above the industry average in 1965. Western Pacific, for example, saw piggyback revenues climb by 43%. In terms of loadings, car or trailer, carriers such as Missouri Pacific, Chicago & Eastern Illinois, Reading, Atlantic Coast Line, Santa Fe, Frisco, Norfolk & Western and New York Central with (Flexi-Van) quote figures that make the industry's 15% gain look modest.

But it isn't all gravy. Growth isn't guaranteed. Costs are going up as volume goes up. Terminals are getting clogged. And railroads today seem to be paying a lot more attention to costs and rates than they did before, when piggyback was new and fresh and a thing to be tried and tested, prodded and pushed, coddled and cared-for tenderly.

Piggyback, in short, is losing glamor and gaining muscle—and a good number of chief executives and traffic officers think it's about time.

● **The rate debate:** Seaboard Air Line is a case in point. H. P. Toxey, vice president-traffic, put it this way: "We feel that our piggyback rate-makers need a little more flexibility in their rate-making—and we feel this could be accomplished through a more realistic view of the costs of all rail transportation, including piggyback, of course. The possibilities for new and imaginative rate-making already exist and need only to be exploited to their fullest extent."

What's the best approach?

What directions should rate-making take? The answers vary. But, for example, Union Pacific Vice President-Traffic J. R. MacAnally declares that the setting of rates "must consider rates and provisions now provided by common and contract carriers—and must also be based on consideration of the transportation costs of the private carriers."

Henry W. Large, PRR's vice president-traffic, sees a need for establishment of inter-territorial rates on Plans II, III and V on a general basis. Between the East and the South, Large points out, "there is general coverage. But between the East and the territory west of the Mississippi, there is no broad coverage on a through-rate basis. The first step would seem to be establishment of a general basis of through Plan III rates."

Over on the Milwaukee Road, P. L. Cowling, assistant to the president and the man in charge of motor-carrier operations, believes that "in the field of rate-making, railroads generally are slowly breaking away from the old box-car formulas and are beginning to price their piggyback service on more modern, up-to-date methods, such as mileage scales and multiple-trailer volume incentives. As this trend increases, I feel that the volume of piggyback traffic will increase proportionately."

● **How much for TOFC?** Most comments on rates, of course, relate to building traffic—which often means diverting traffic from other forms of transportation. And the thinking on rates inevitably is reflected in forecasts as to how important piggyback may become as a revenue producer.

Here, you can get all kinds of opinions. Northern Pacific President Robert S. Macfarlane sees a target in that segment of inter-city traffic now moving by private or exempt motor carriage. PRR Vice President Large zeroes in on the potential in inter-territorial movements, waterborne traffic and the small shipment field. Chicago & North Western, along with a number of other midwestern roads, is eying profitable handling of packing-house products. UP Vice President MacAnally cites fresh fruits and vegetables, frozen foods, fresh meat and packing-house products and manufactured articles as prime areas for solicitation. Missouri Pacific's C. T. Groton, Jr., general manager-merchandise operations, looks for an expansion of TOFC in the field of bulk-commodity movement in tank trailers.

Over-all, there's no shortage of traffic to go after—and the goals are being set. It's generally a matter of "to each his own"—and each individual traffic triumph can give pointers that bring more business back onto rails.

● **Revenue—and profit.** There are, however, sobering thoughts. Some traffic men are wondering just how profitable certain arrangements are. And from a top marketing man comes a real tone of caution:

"A realistic approach is necessary in the area of rate adjustments being considered to divert traffic from motor carriers to piggyback. The traffic potential to be regained is obviously that in the longer-distance category and in traffic that moves on equipment that primarily is dedicated to a one-way haul.

"I believe that one of the great dangers existing in TOFC is the proposal by some people to loosen the 60-40 rule now in effect on the all-freight rates. The opposite should be the case, and strict enforcement of compliance with existing rules should be maintained, or the result will be a serious reduction in freight revenues at the expense of all carriers, rail and truck—and TOFC.

"The entire premise of an all-freight rate is a dangerous field and any relaxation in present restrictions can result only in unnecessary revenue reductions

All systems are up

NEW YORK CENTRAL

Year	Loadings (container)
1961	51,000
1962	71,500
1963	92,500
1964	100,000
1965	122,000

CHICAGO & EASTERN ILLINOIS

Year	Loadings (trailer)
1961	11,000
1962	14,000
1963	25,000
1964	38,000
1965	53,300

MISSOURI PACIFIC

Year	Loadings (trailer)
1961	23,500
1962	24,900
1963	29,000
1964	41,500
1965	55,000

to all carriers and a diversion from rail box car to TOFC that will help no one, including the shipper and receiver."

On top of this, there's no real shaking down, as yet, regarding which plan of the five (plus variations) offers the big hope.

• **Which plan offers most?** For Union Pacific, for example, Plan I is expected to show the top growth rate—but it was established on the road just about six months ago. Pennsylvania, on the other hand, sees top potential in Plan V—which, says Vice President Large, "is being vigorously expanded. It provides a means of penetration into areas which cannot be readily reached through Plans II, III and IV. It represents a marriage of short-haul motor carriage and line-haul rail transportation between ramp points under joint rate arrangements."

Another vote for Plan I is cast by the Milwaukee. Says Assistant to the President Cowling: "On western transcontinental roads, it appears that the greatest volume growth in the next few years will be in Plan I traffic—due to the fact that Plan I first became available transcontinentally to the motor carriers Dec. 12, 1965, and it's now in its infant stage. This service is looked upon enthusiastically by all of the transcontinental motor carriers—and they are now in the process of coordinating and gearing their operations to the fullest utilization of the new Plan I service now available to them. We on the Milwaukee also foresee good growth in transcontinental Plan II traffic and its variations, primarily because of our fast freight schedule of 55½ hours from Chicago to the North Pacific Coast—which is the fastest land service available to the shipping public at the present time."

• **Will it be II and III?** Then there's Seaboard. As Vice President Toxey assesses things, "it seems most clear that Plans II and III will show the greatest growth over the next few years. Plan II, of course, is the railroads' direct competition with highway transportation. It has shown, and we feel it will continue to show, the fastest growth. Plan III, however, follows close on the heels of Plan II and the remarkable growth of this plan, we believe, is due to the one thing that has made piggyback as a whole grow—and that is flexibility.

"When anyone speaks of growth in the various piggyback plans, it should not be overlooked that while Plan I may not be showing increases comparable to those of Plans II and III, the potential is there. And, with a few sticky problems being solved, this plan can really blossom forth. Seaboard, for one, is working very hard in this direction. And, since a substantial percentage of the Plan I business is less-truckload freight consolidated by the truck lines, we feel that this is the one way we can participate in the movement of this traffic at a clear profit to the railroad."

There's also the view of a marketing man who, thus far, has been able to watch piggyback from a somewhat detached position—as a participant, but not as a major one. In his view, "Plans I, III and V show the greatest growth potential over the next few years. Plans I and V offer the flexibility that is required in utilizing motor and rail carrier in the areas of greatest strength. Plan III supplies certain shippers with the opportunity to reduce their transportation costs by eliminating some contract-carrier movement through movement of company-owned trailers to the TOFC ramp.

"Plan III, however, is limited. Growth will come only in movements of substantial volume between limited terminal areas. The need to provide transportation for delivery at the other end of the haul limits the effectiveness of Plan III—and thus future growth will possibly not be so great as in Plans I and V."

• **What percentage for TOFC?** Finally, in talking of piggyback potential, there's no consensus on how big the TOFC thing can be, as related to total freight business.

Union Pacific takes a conservative view—forecasting TOFC carloadings at about 17% of the total within another 10 years. Pennsylvania and Seaboard draw their comparisons on a revenue basis—and, so far as piggyback is concerned, they're quite a bit higher in their predictions.

In 1965, PRR Vice President Large points out, the five basic TOFC plans "produced about 5½% of our total freight revenue, excluding mail and express traffic to the extent that it was handled in TOFC service. The manufactures - and - miscellaneous category, conventional and TOFC, represented about 60% of our total freight revenue. TOFC may ultimately encompass 50% of the manufactures-and-miscellaneous category—and thus it would constitute 30% of our total freight revenue."

Good reason for optimism

This might seem optimistic — but SAL is even more so, and with apparent good reason. Says Vice President Toxey: "Seaboard is very optimistic about the future growth potential of piggyback. We believe that eventually more than 50% of total freight revenues will come from TOFC. That portion of the piggyback traffic potential which calls for job-site deliveries—such as construction materials of all sorts—will become even more important in TOFC traffic solicitation, and this southeastern area is a natural for this type of transportation. Another area of extreme importance is that of direct distribution from manufacturer to local sales agency—and piggyback permits the elimination of costly warehouse storage and extra handling."

• **50% is 'possible.'** As for the Milwaukee, the percentage of total revenues which piggyback may produce "is anybody's guess. However," says Cowling, "I have heard people predict that in the next five to 10 years, TOFC traffic could produce as much as 50% of the total revenue on most major railroads. In my opinion, this thinking is not too far-fetched."

The problems in realizing this potential and in maximizing revenues-to-net will be great. Just one example (overlooked by some): prevention of loss and damage in trailer movement. More than

WATCHING **WASHINGTON** WITH WALTER TAFT

TAFT

FOUR FREEDOMS STILL TO FORE—Despite the railroads' "in principle" support of President Johnson's transportation program, the industry's own legislative program is still topped by the Four Freedoms drive. That calls for freedom to make competitive rates, freedom from subsidized competition, freedom from discriminatory taxation, and freedom to diversify. The latter means easing restrictions on the operation by railroads of other forms of transportation.

The top-priority position assigned to these calls has been emphasized again by President Daniel P. Loomis of the AAR. He seized the opportunity to do so as he was explaining to Congressional committees how the Association feels about the Johnson program's proposed cabinet-level Department of Transportation (RA, May 23, p. 12). The railroads support this proposal, provided it is modified to leave railroad safety and car-service functions with the ICC. As submitted to Congress by the Administration, the implementing bill contemplates transferring those functions to the proposed department.

LBJ PLAN WON'T END INEQUITIES—Loomis used the closing paragraph of his presentation to warn Congress that enactment of the Administration bill, though a "forward and most progressive step," would not solve the country's over-all transportation problem. "No one should overestimate what would be accomplished," he said, adding: "There would remain certain inequities and inequalities that can be eliminated only through changes in existing provisions of substantative law."

Questions inspired by this gave Loomis a chance to plug for rate freedom. He expressed the railroads' feeling that the ICC's decision in the Ingot Molds Case was a major setback for rate-making freedom. That decision, in I&S No. 8038, condemned the railroad rates in issue because they were below the full costs of competing water carriers—despite the fact that those carriers were keeping their own rates below such costs (RA, Apr. 25, p. 50). Loomis conceded that a secretary of transportation could not end such ICC rulings. He went on to suggest, however, that the secretary might become an influential supporter of corrective legislation, recommending it on the basis of rate-freedom views held by the President's Council of Economic Advisers. In effect, the Council has advised the President that the railroad position on this controversial matter is economically sound (RA, Feb. 7, p. 12).

SOME PROGRESS—Meanwhile, the bids for freedom from subsidized competition and for relief from discriminatory taxation seem to have been making progress lately. The discriminatory-taxation fight is now about won in Illinois. The win came out of the U.S. Supreme Court's refusal to upset a favorable ruling which the railroads got from the Illinois Supreme Court (RA, May 23, p. 11).

The call for freedom from subsidized competition is a call for adequate charges for use of publicly-provided transport facilities—waterways, highways and airways. President Johnson, of course, has had a user-charge program for sometime. That it is still one of his major interests is indicated by a recent memorandum in which he appealed to all agencies of the federal government for "continuing active support" of pending legislation to implement the program.

HOUSE COMMITTEE'S MOVE—The program was submitted to Congress by the President last year. It got nowhere, so the Budget Message of last January made it a 1966 Administration program. The implementing bill was submitted to Congress in March by the secretaries of the Treasury and Commerce—Henry H. Fowler and John T. Connor respectively. It is now before the House Ways and Means Committee which has the next move. That Committee must clear money bills of this kind before they become eligible for consideration by the House. And passage by the House must precede Senate consideration.

a dozen major TOFC operators are using trailers equipped with L&D-prevention devices—and more and more are becoming interested, even though TOFC generally has had an excellent L&D record. NP President Macfarlane, for instance, would like to see standard damage-prevention equipment permanently attached to trailers; MoPac traffic men think fondly of an increase in the number of trailer units equipped with various kinds of devices for dividing and bracing loads.

Then there's that ever-present matter of terminal handling—and the increasing need for speed and greater efficiency. Finally, it appears that the gantry-crane, lift-on and lift-off method may be in the ascendancy for straight piggyback and certain types of container operations. Units installed recently by several manufacturers are proving out—for example, the Southern Iron & Engineering rail-mounted crane used by the Pennsylvania at Kearny, N.J., the Drott units placed in service by Santa Fe at Chicago and East Los Angeles and the mammoth R. G. LeTourneau crane which completes an operating cycle in 90 seconds at Burlington's piggyback-container terminal at Cicero, Ill. (see p. 18).

Burlington describes the development of this unit in somewhat awed terms. With stringent specs in hand, CB&Q says, the road went to R. G. LeTourneau—and the 78-year-old designer of earth-moving equipment and off-shore oil-drilling rigs "was reportedly fascinated by the challenge." Result: Design, test and finally installation at Cicero of the giant crane which Burlington calls "the largest and fastest crane yet built for unloading trailers."

• **For people who like challenge:** These problems—load protection and terminal handl'ng—are just two of many which face piggyback. There are other challenges which face railroad men and suppliers which also have that element of fascination—and they'll have to be met, too.

Everybody will become involved, one way or another—in mechanics, in operations, in pricing, in marketing, in sales. But the stakes are worth the effort to win. Under Louis W. Menk and now J. E. Gilliland, for instance, Frisco has been a consistent leader in TOFC gains. This year—with piggyback, nationwide, showing a 10% gain—Frisco is working on something far better. For the first three months of '66, Frisco posted a 38.4% traffic increase—and that's the largest first-quarter gain, year to year, which the road has ever experienced. An accident or a fluke of some sort? Not as SLSF people look at it. They call it thought and study and action—not luck. ■

Circle 29 on reader service card ▶

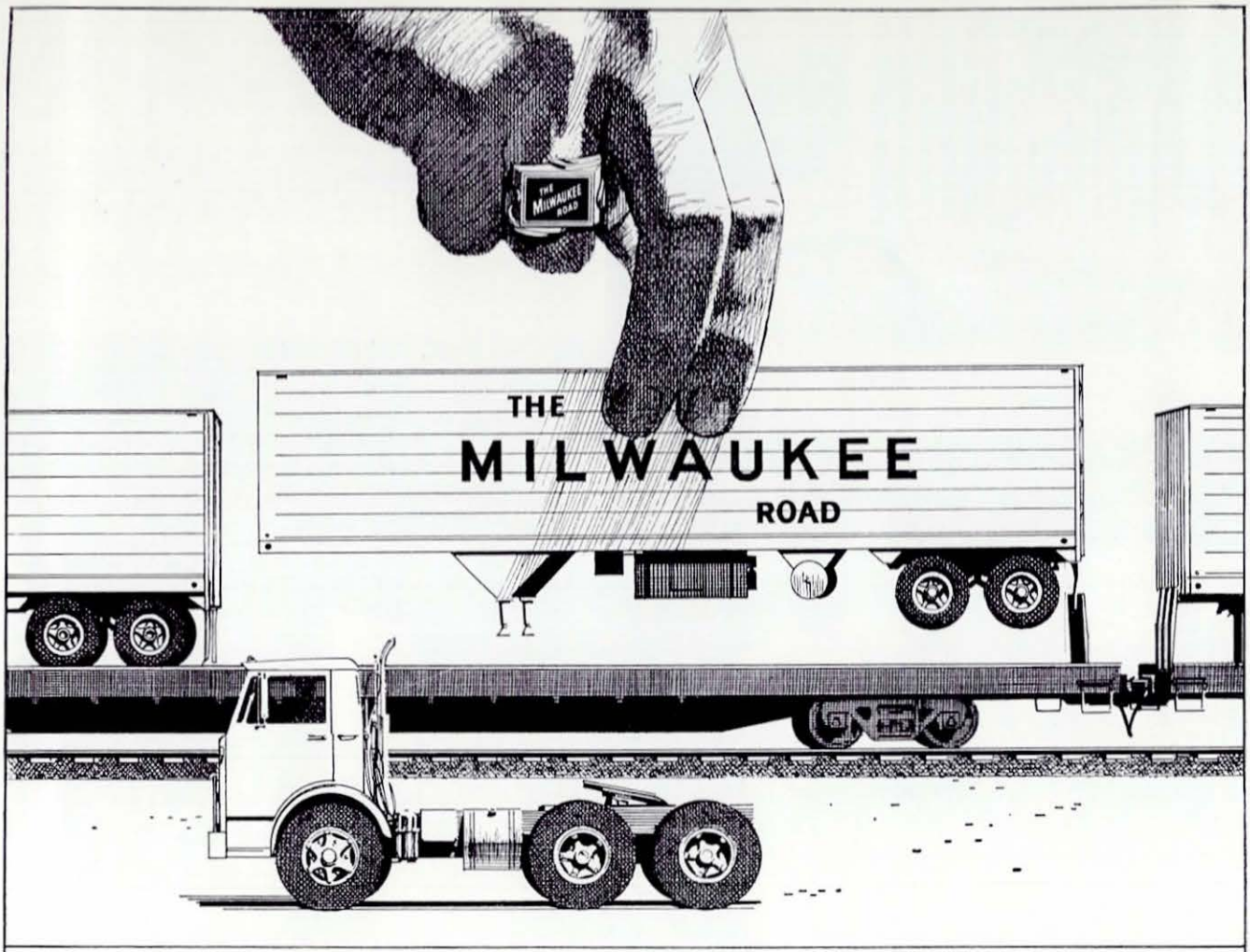
Rugged and Right for Piggyback Service

Write for brochure

describing our
products and facilities

DORSEY TRAILERS

DORSEY TRAILERS
ELBA, ALABAMA
A Subsidiary of The Dorsey Corporation



THE MILWAUKEE ROAD'S "CREATIVE CREWS" ARE EXPANDING PIGGYBACK SERVICE TO BENEFIT SHIPPERS!

The Milwaukee Road now offers service from or to over *1,000* originating or terminating points in 14 states. Connections at Chicago to and from the East and South, at Omaha and Kansas City to and from the Southwest and California.

"Creative Crews" planning has resulted in a constantly expanding piggyback fleet. No equipment problems when you ship via The Milwaukee Road where all types of equipment are available including refrigerated, open top, flat bed or dry volume vans. Ramp facilities, too, are more numerous and more efficient.

Increased facilities, increased equipment—plus greater speed! Milwaukee Road piggyback shippers gain the fastest service on rail or road, from the Midwest to the Pacific Northwest even *faster* than passenger train service in some instances!

This service puts a railroad siding up against your loading platform even though there is no railroad line within miles. Gives you dependable door-to-door delivery, on-time schedules that are unequaled.

It all adds up to one of the most complete and progressive piggyback operations in railroading. An expanded service that is building an ever-increasing freight volume for The Milwaukee Road and establishing it among shippers as a leader in the piggyback field.

ALL PLAN SERVICES

Consult your nearby Milwaukee Road piggyback specialist for information on Plans I, II, III, IV, and V, or modifications of them.

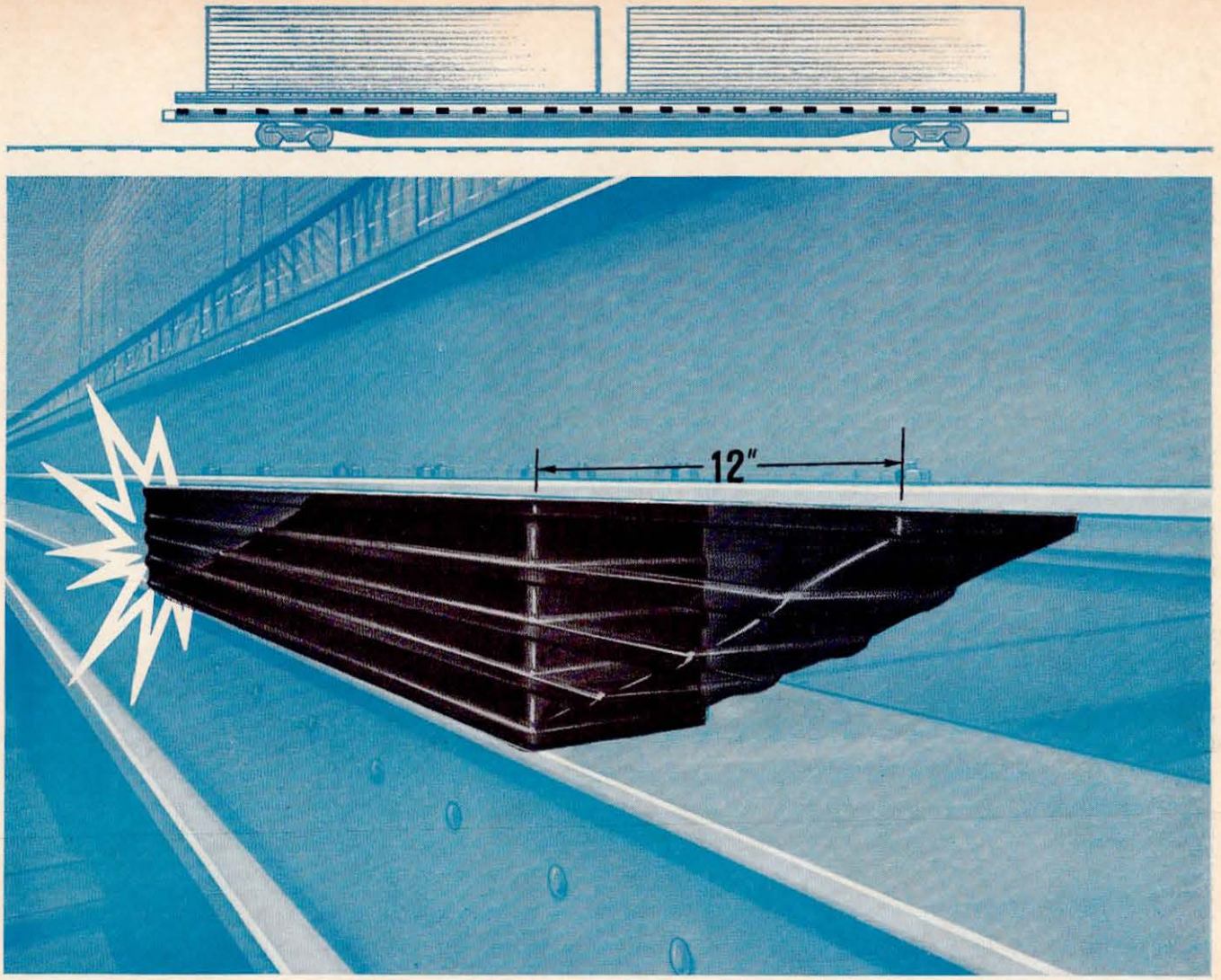
"Creative Crews"
a distinctive idea in railroading

A dynamic creative way of doing things is the service philosophy of the entire Milwaukee Road. It's an attitude toward transportation problems that breaks with tradition and pioneers new ideas. It's inspired by a forward-looking management outlook that is making The Milwaukee Road America's resourceful railroad... the railroad of "Creative Crews." The Milwaukee Road, Union Station Building, Chicago, Illinois.

The railroad of "Creative Crews"

SERVING 14 STATES

Circle 30 on reader service card



12-inch motion of Dyna-deck mountings (below) introduces new concept of shock control for COFC cars (top).

New shock cushioning system for containerized freight provides 12-inch travel

Containerized lading can now have shock protection equivalent to that of piggyback trailers.

The means: our patented Dyna-deck® shock control system with large deflection capability. Provides 12 inches of travel in either direction.

Simplest available system

The Dyna-deck system is an efficient answer to many shock cushioning problems. For simplicity, economy and long service life, it employs mountings made of *rubber with a backbone of steel.*

Installed between car frame and deck, Dyna-deck mountings carry heavy loads, reduce damaging impacts and protect lading.

Five other advantages

Other system features include:

- Ease of installation.
- No maintenance, lubrication or wear surfaces.
- All-weather protection.
- All-direction flexibility controls vertical vibration and lateral shock as well as longitudinal impacts.
- Durable materials resist weather and temperature extremes, grit and grime.

The outstanding performance of Lord shock control systems has been proved by years of railroad service.

For information on protecting your containerized freight, write: *Lord Manufacturing Company, Division of Lord Corporation, Erie, Pa. 16512. Field Engineering Offices in principal cities. In Canada: Railway & Power Engineering Corp., Ltd.*

The leader in vibration/shock/noise control

LORD®

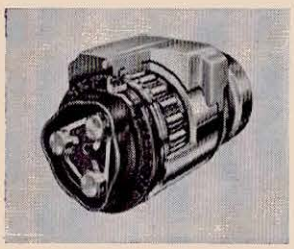
Circle 13 on reader service card

Circle 14 on reader service card ▶

Are you nailed down to a tapered journal roller bearing design?

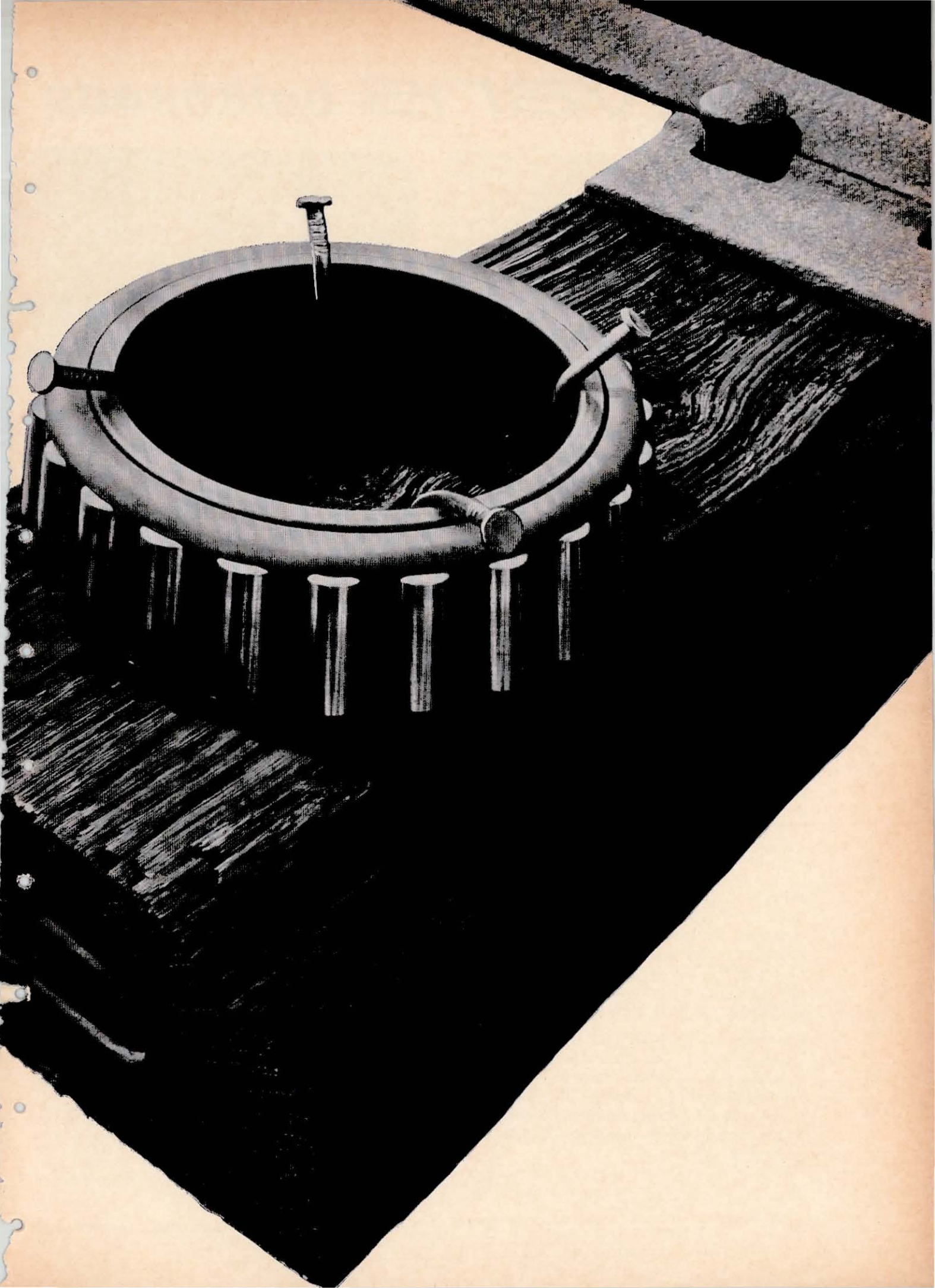
Now you have a choice.

Of all the railroad bearings made in the U.S. only one is different: the SKF cylindrical roller journal bearing. And it offers you the strongest reasons to pry yourself loose from tapered roller bearings. ▪ Take maintenance, for instance. SKF® "Expediter"® cylindrical roller bearings can be inspected in the field. Tapered bearings cannot. In the shop, SKF cylindrical roller bearings disassemble completely for thorough, faster inspection. ▪ Then again, SKF "Expediter" bearings offer more efficiency than tapers. By actual test, they have greater radial capacity. Thrust is handled without wedging action. Only cylindrical roller bearings have lateral capacity. ▪ SKF "Expediters" have a higher speed capability. New shrouded SKF sealing keeps dirt and moisture out. ▪ All of which explains why we sold more "Expediter" bearings in 1965 than ever before. Want to nail us down? Easy. Call your Abex representative. Or write for our "Expediter" booklet to:



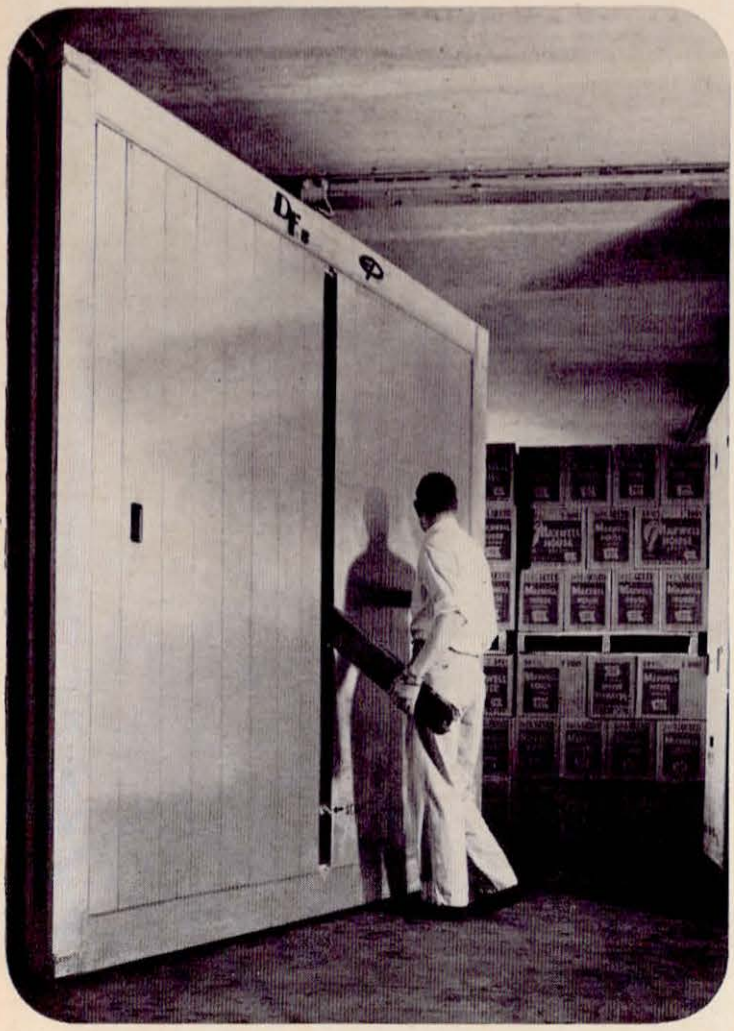
Abex
CORPORATION
Railroad Products Division
530 FIFTH AVENUE, NEW YORK, NEW YORK 10036

®A registered U.S. trademark of SKF Industries, Inc. "G" design "Expediter" sales and service by Abex Corporation.



PART FOR PART

Evans bulkheads



Evans DF®-B One-Piece Bulkhead—Evans originated the one-piece bulkhead. Since 1959 they've been proven in use in more than 14,000 freight cars over millions of car miles. Ideal for packaged or unitized lading. The greater strength and longer life of Evans Bulkheads reduces your ultimate cost, minimizes maintenance and gives you the best lading protection.

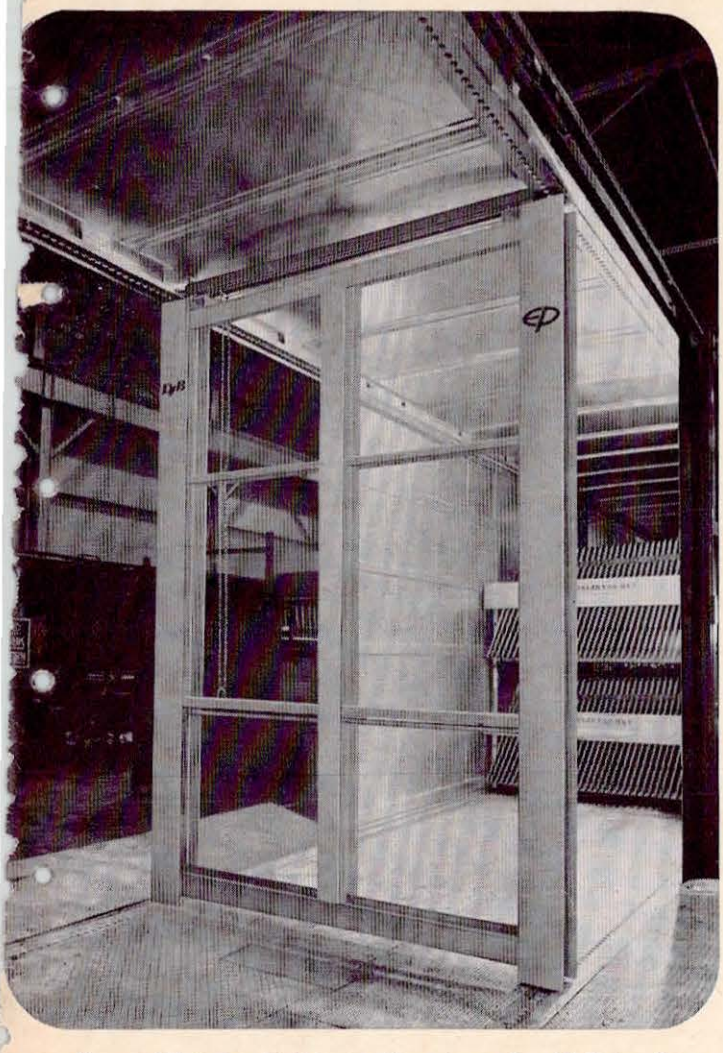
Evans DF®-B Two-Piece Bulkhead—Designed for railroads and shippers who prefer a two-piece unit. Unlike other two-piece units, these bulkheads (1) can be positioned flush against each other or against end walls of car, (2) roll more freely because of more uniformly timed cog wheels, (3) are built of stronger components assuring long trouble-free life.

Whatever type of bulkhead you require, Evans gives you a lot more bulkhead . . . a lot less maintenance. Evans Bulkheads are designed for trouble-free performance, and are built with the strongest, toughest materials available. Both design and choice of materials are dictated by long experience in the railroad damage prevention field, and proved by controlled-condition impact testing as well as by actual freight car operations in the field.

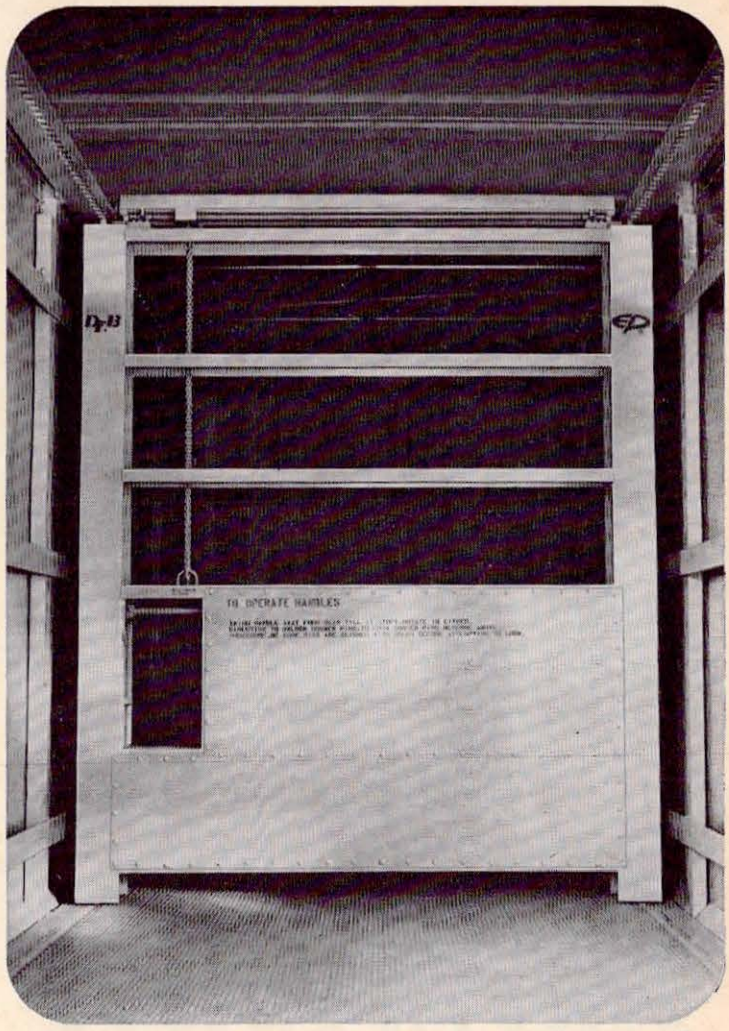
Evans leads the bulkhead field because Evans delivers *more bulkhead service per dollar cost per year of use.* This means more bulkhead for the money over the long run . . . more service with less maintenance . . . longer life with less need for replacement. Evans offers the most complete bulkhead line available anywhere. Evans Bulkheads are used in more cars on more railroads than any other make.

New "non-rotating" feature. Another version of Evans DFB One-Piece Bulkhead moves back and forth inside car, but does not swivel. Locking pins and handle are always under tension, assuring positive locking at all times.

are stronger... built to last!



Evans Hi-Cube Bulkhead—Two types for Hi-Cube Cars: (1) (shown above) for bracing low-density automotive parts; (2) faced with smooth steel skin for bracing packaged household appliances. Both types easily operated from inside car or from loading dock through open door. Positive locking mechanism automatically locks when handle is released.



Evans Hi-Density Bulkhead—For bracing high-density lading in 60' or longer box cars. Easily operated from inside car or from loading dock through open door. Positive locking mechanism automatically locks when handle is released. Also available with smooth steel skin to enclose bulkhead structure.

. . . you get a lot more bulkhead, with a lot less maintenance

In developing the DF-B Bulkhead, Evans ran well over 400 electronically instrumented impact tests, most under heavy load conditions. Evans is the only bulkhead manufacturer equipped with its own fleet of rolling laboratory freight cars for the purpose of testing and constantly improving its damage-prevention devices. We make certain that Evans Bulkheads are the sturdiest on the market. We invite you to compare Evans Bulkheads with competitive devices. You'll see why *part for part, Evans gives you more bulkhead for your money.*

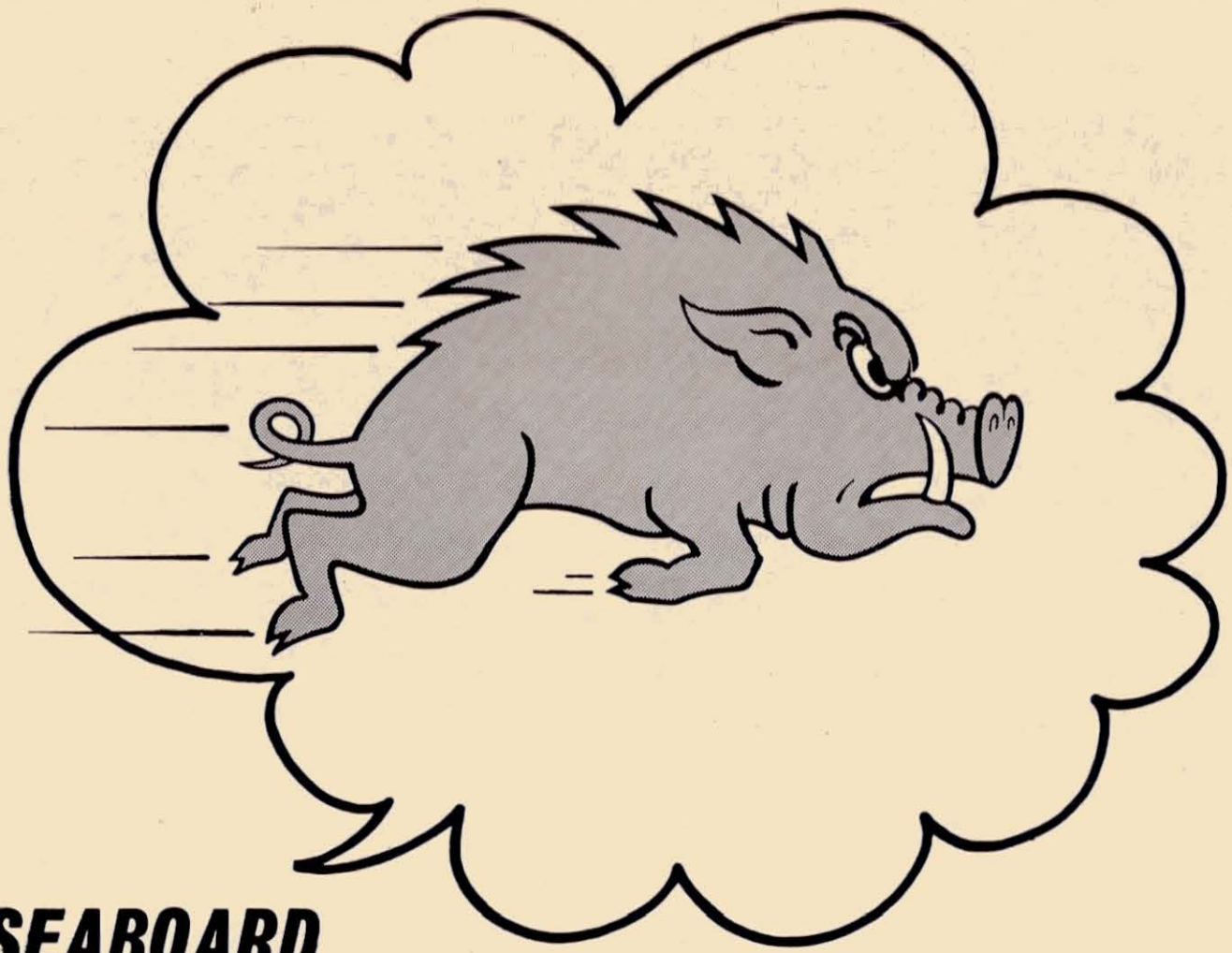
Write Evans Products Company, Dept. A-5
13101 Eckles Road, Plymouth, Mich. 48170.
Canadian Representative, International Equipment Co., Montreal.

Evans Full Circle of Service for railroads and shippers

evans

RAILWAY EQUIPMENT DIVISION
Transportation Equipment Group
Plymouth, Michigan. Member RPI and ARCI

Circle 15 on reader service card



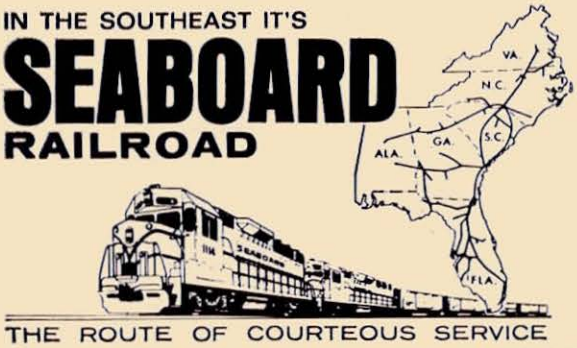
SEABOARD
Razorback
...symbol of the best in piggyback transportation

Seaboard Razorback stands for availability of trailer equipment, fast save-a-day schedules, on-time performance, and representatives who follow through for you every time you say "Seaboard it".

For your piggyback or other freight movements, remember *Razorback* means SEABOARD SUPERIOR SERVICE.

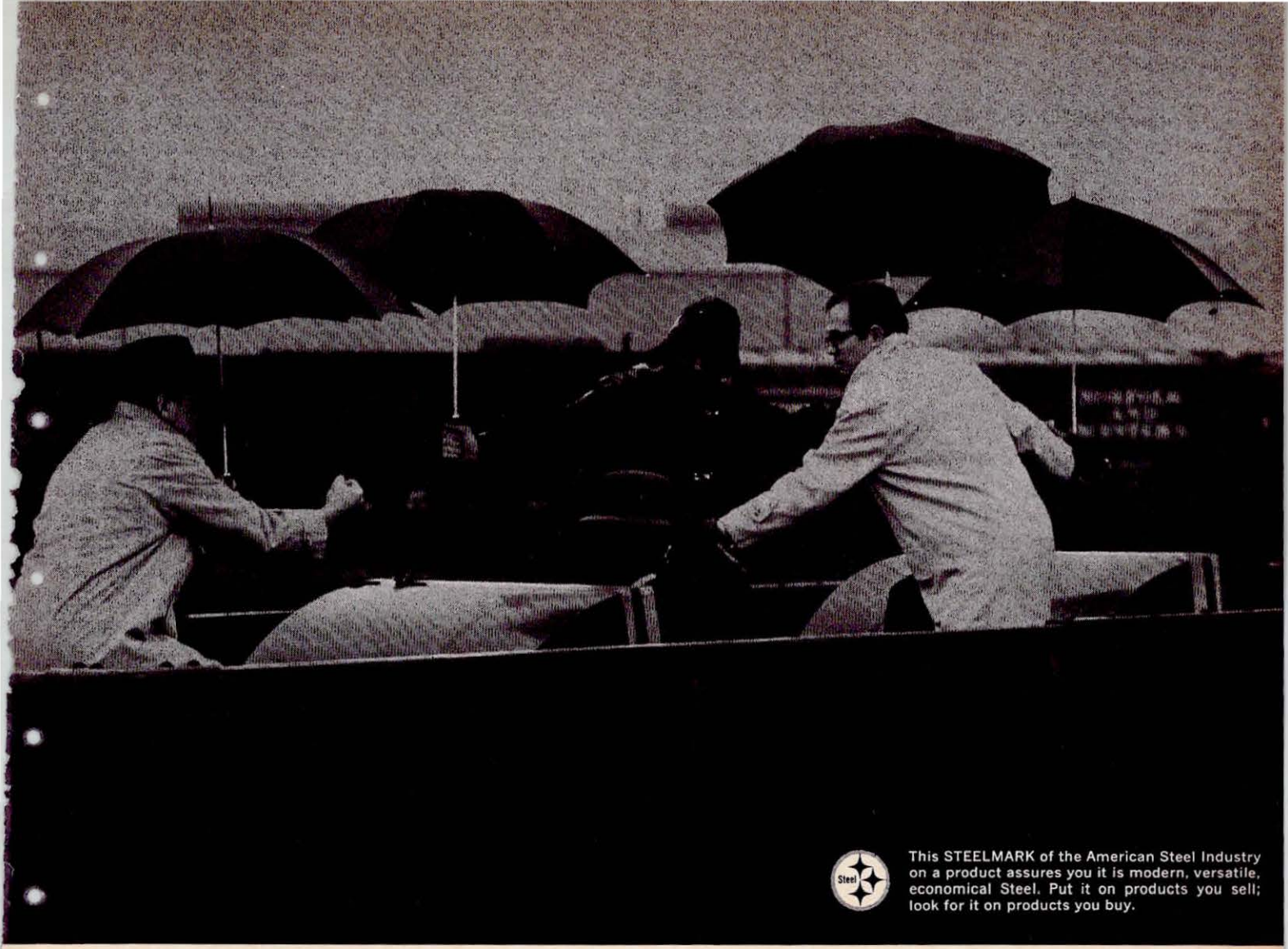
IN THE SOUTHEAST IT'S

SEABOARD
RAILROAD



THE ROUTE OF COURTEOUS SERVICE

Circle 16 on reader service card



This STEELMARK of the American Steel Industry on a product assures you it is modern, versatile, economical Steel. Put it on products you sell; look for it on products you buy.

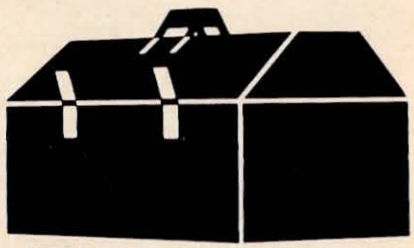
"Entwistel, remind me tomorrow to order those Republic Coil and Gondola Covers."

Steel coils and heavy equipment go through in top condition when you provide Republic Coil and Gondola Covers to consignees. Coils up to 84" diameter are safe from weather, grime, and vandalism; require no waterproof paper wraps; are protected from condensation damage. Vents at each end of covers allow air to circulate over lading, yet keep out hardest rain.

Design of Republic Coil and Gondola Covers utilizes super strong corner reinforcing and corrugated steel sheets to make covers practically impervious to rough lift on and lift-off and careless stacking at trackside. Republic Coil Covers and Gondola Covers spend more time riding the rails, less time in the repair yard.

Available as car-length 3-section gondola covers with weather seals and interlocks between sections. All Republic Coil and Gondola Covers have inspection ports for quick checking of hold-downs and cradles without lifting covers.

Literature on Republic Coil and Gondola Covers will be sent to you on request. Also an experienced salesman, if you wish.



REPUBLIC STEEL

MANUFACTURING DIVISION

REPUBLIC STEEL CORPORATION
Youngstown, Ohio 44505

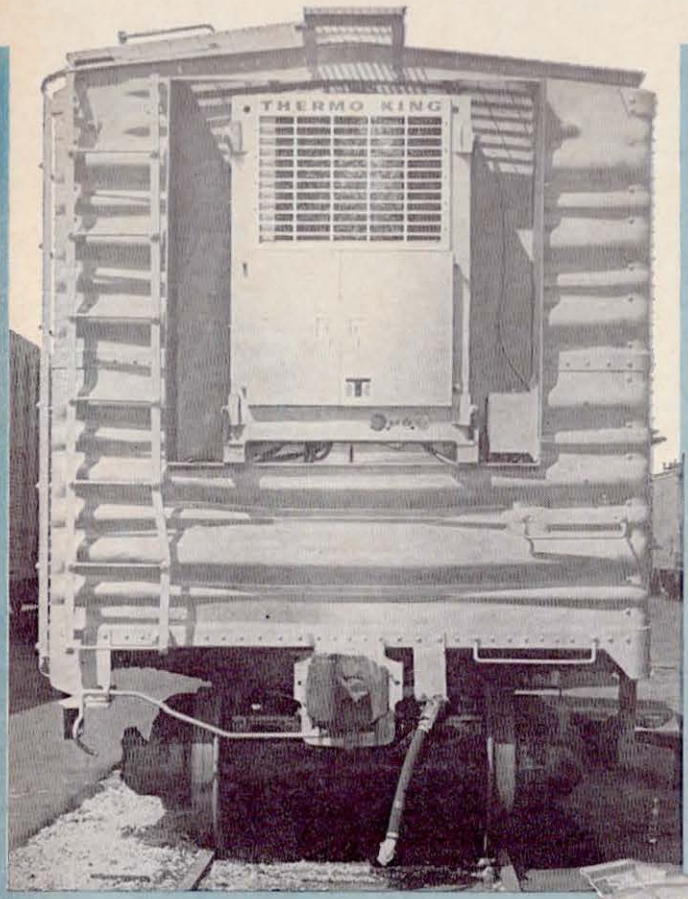
THE MAN FROM MANUFACTURING®

*A Trademark of Republic Steel Corporation

Circle 17 on reader service card

THERMORATED*

THERMO KING Model NWD INCREASES PAYLOAD SPACE 15% IN ICE BUNKER CAR CONVERSION



- Increases interior length from 33′ to 38′ to add 274 extra cubic feet in 40′ ice cars.
- A one-piece factory-tested unit, ready to run when shipped.
- Unit is simple to install and easy to service.
- Powered by rugged, dependable Mercedes-Benz diesel.
- Offers full range temperature control from −20°F. to 80°F.
- All components specially built for roughest transport conditions.
- Electric power standby option is available.
- A super capacity system that will easily handle 50′ cars as well.

Up front mounting of NWD system offers operational advantages. Condenser is cooled by unobstructed flow of clean air. Unit occupies no floor space, and only a few feet of cargo space. It is economical to operate under all types of transport conditions.

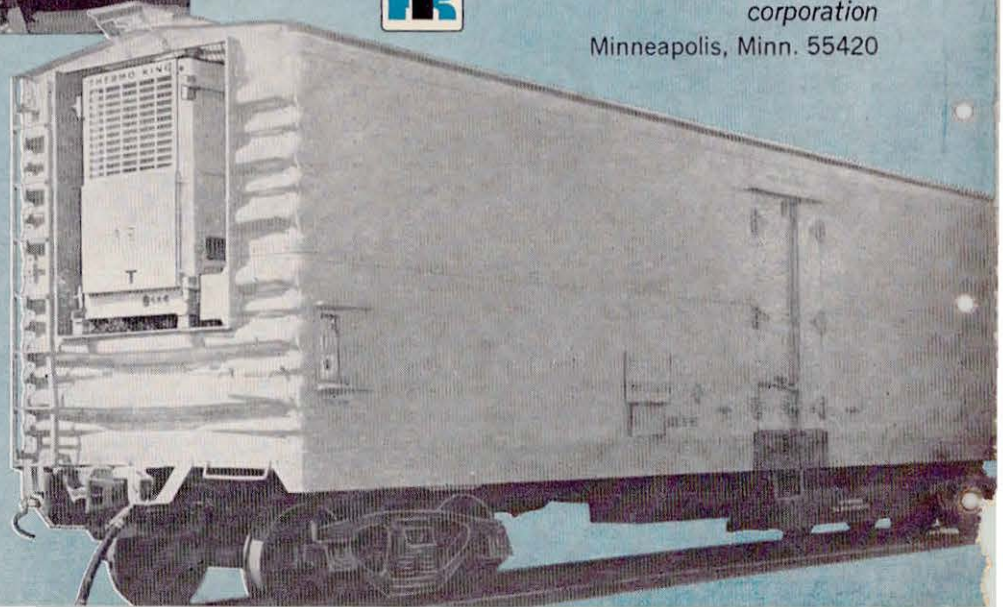
World Leader in Transport Refrigeration

THERMO KING
corporation
Minneapolis, Minn. 55420

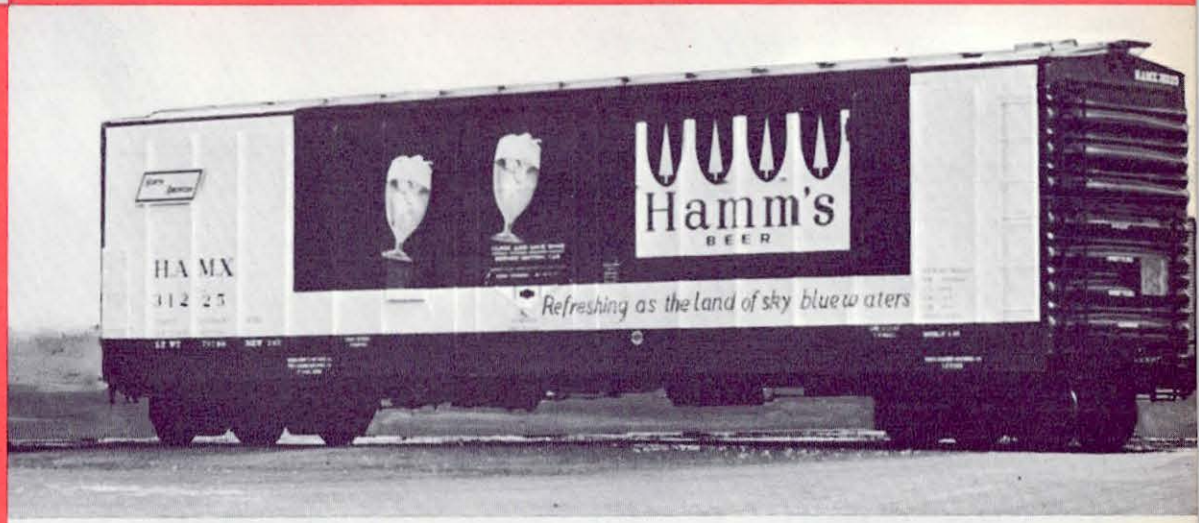
Only THERMO KINGS are

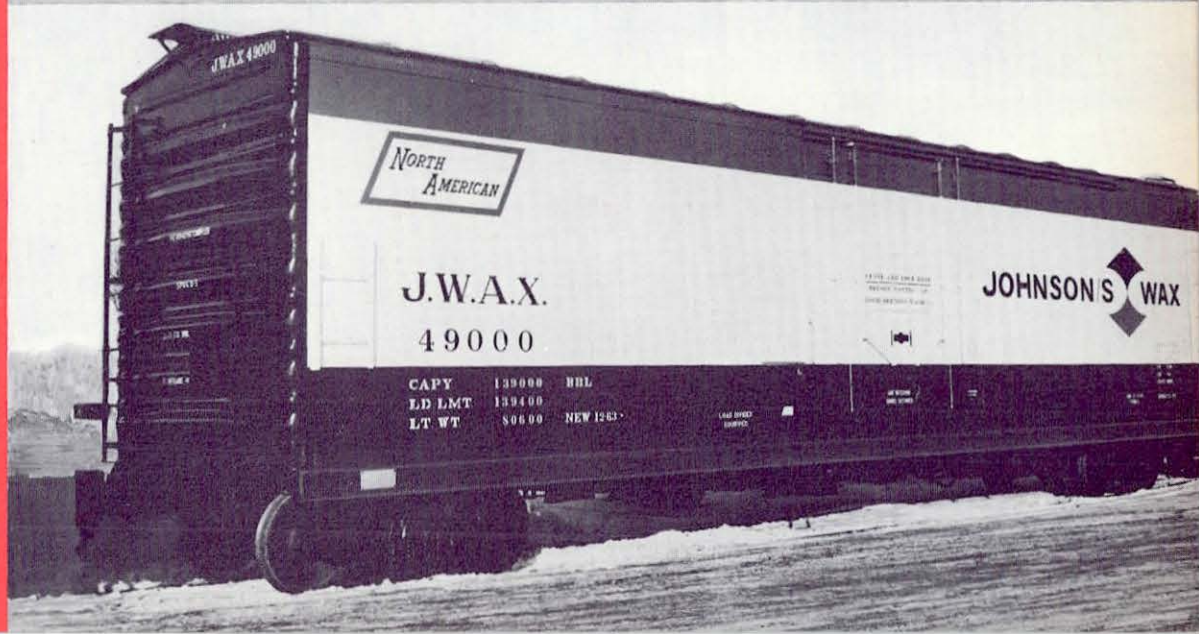
***THERMORATED**

- **VERIFIED PERFORMANCE**—Rated capacity with assured reliability
- **JOB ENGINEERED**—Developed for a specific requirement
- **TOTALLY "BUILT-FOR-TRANSPORT"**—Custom components with rugged durability
- **SERVICE/PARTS PROTECTION**—Factory authorized dealers everywhere



Over 3,000 void-free cars equipped with LANDRETH Pre-molded Urethane foam Panels*





Patent No. 3,226,899.

Reduce labor costs with easy-to-install LANDRETH Pre-molded Urethane foam Panels

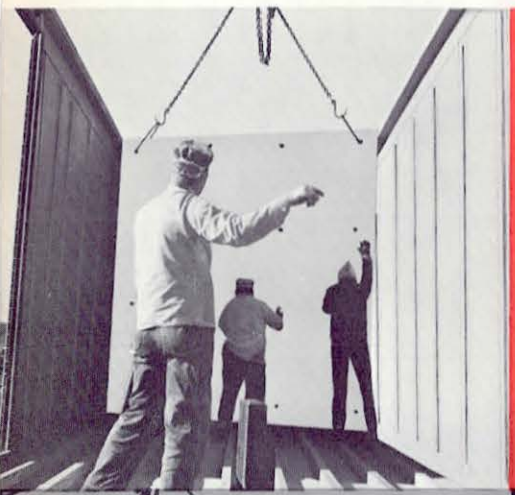
Landreth continues to pioneer new equipment and systems for the transportation industry. Landreth's experienced engineers have dedicated over 60 years of service to the railroads as well as to the research and development of quality, labor-saving, and profit-making systems and products.

Our modern plants operating under controlled laboratory conditions, supervised by trained engineering specialists to insure the best possible insulation to suit your custom needs.

Ten foam machines, equipped to provide uniform volume and temperature control of the feed streams insure fast and efficient production.

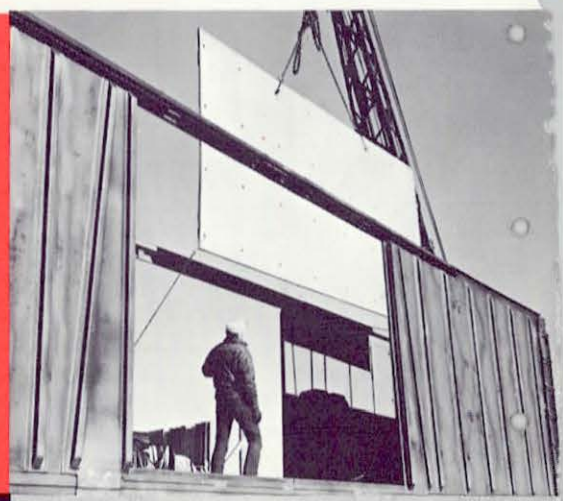
Now you can free capital that would normally be invested in special facilities, research laboratories, engineering, and labor.

How to reduce costs and increase efficiency



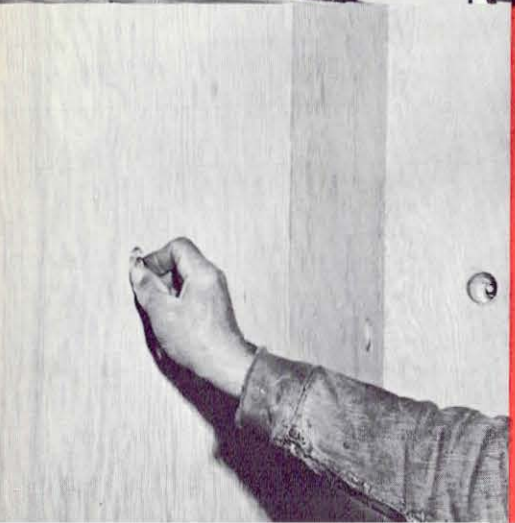
1 Workmen lowering end panel into place. Panels are moved into production line on freight cars and lifted into cars on cranes.

2 Workmen lowering side panel into place.



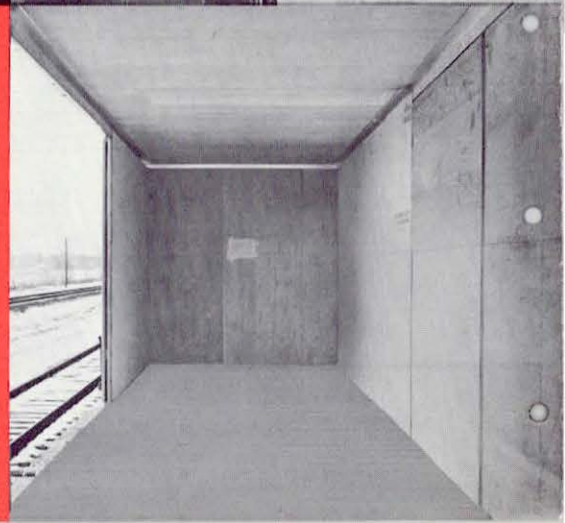
3 Workmen fitting side panels into place. Only 14 panels per car—panels are pre-trimmed, complete and ready to bolt into place for the sides, ends, ceiling, floor, and door.

4 Workmen fastening "Nelson" stud to outside post. Insulation thickness is reduced by ½ over conventional insulation materials.



5 Workmen inserting attaching device which when tightened, secures panel to side of car. This effective fastening system provides fastening without the normally associated heat loss.

6 Finished car. All joints foamed to insure a complete air-tight car.



Landreth panels increase insulation efficiency and cut costs

The new Landreth Pre-Molded Urethane Foam Panel enables railroads and car builders to build a better car faster and with less man hours in their shops.

The new Landreth system enables the builder to provide a Urethane Foam car without the necessity of installing special machinery and costly facilities.

Landreth Pre-molded URETHANE foam Panels engineered and proven best by test

The Inside Story of Budd Report #2238

The Landreth Insulated Car equipped with Landreth's Pre-Molded Urethane Foam Panels has just undergone exhaustive tests. After six months of road tests, the car was tested in The Budd Company testing laboratories in Philadelphia.

Here are the startling results from the Budd Laboratory's report.

The car constructed with the Landreth Pre-Molded Urethane Foam Panels was to be tested against two other cars constructed with Urethane Foam block. All the cars had been previously road tested for six months or longer.

The Landreth equipped car had absolutely no air leakage, no hot spots, and *no voids in the foam.* In addition, at 100 degrees differential, the car built with the Urethane Foam block had a BTU average of 143 BTU's per hour. The car equipped with the Landreth Pre-Molded Urethane Foam Panels also at 100 degrees differential and tested under the exact conditions, showed an average of just 93 BTU's per hour.

The Landreth Insulated Car was at least 50% more efficient than the car constructed with foam block. Conclusive proof that the Landreth Pre-Molded Urethane Foam Panel—is "Best by Test"!

Reduce labor costs with easy-to-install Landreth pre-molded Urethane foam panels*

Landreth Pre-Molded Urethane Foam Panels provide a lower K factor, as low as 0.11 (BTU's/sq. ft./hr./°F/in.) at 70 degrees as compared to 0.23 for conventional insulation. Over 90% of Urethane cells are closed. Thus, locking out moisture.

Check these features that make LANDRETH pre-molded Urethane foam panels*— best by test!

- ★ No Air Infiltration
- ★ No Localized Hot Spots
- ★ Non-Burning Foam
- ★ Easy Repairs
- ★ Seamless Vapor Barrier
- ★ Greater Thermal Efficiency
- ★ Thinner Walls
- ★ Completely Pre-Fabricated
- ★ Guarantee No Voids
- ★ All Joints Foamed
- ★ No Moisture Absorbtion
- ★ Odor Free and Non-Toxic
- ★ Fungus and Rot Proof
- ★ Added Structural Rigidity
- ★ Improves With Age—Does Not Deteriorate
- ★ Fire Proof
- ★ Does Not Split or Settle From Road Vibration or Temperature Change

Highest quality controlled Urethane material on the market today

Patent No. 3,226,899.

Landreth INDUSTRIES INC

LANDRETH INDUSTRIES, INC.
2100 Greenwood Avenue • Evanston, Illinois • Phone: 328-2062

More tips for freight salesmen

Part two of Poll report brings out new suggestions as to how to improve sales techniques.

Selling of railway freight services has generally improved within the past five years. Shippers queried in Railway Age's April Traffic Poll agreed by a wide margin on that point (RA, April 25, p. 29).

They agreed also that there is lots of room for further improvement, with "better informed salesmen" as by far the biggest single need. Their comments on that score were given in last month's Freight Traffic issue, referred to above.

This, the second part of the Poll report on carrier selling, reports the less numerous but equally interesting comments on other ways in which shippers think freight service selling can be changed for the better.

● **More business-like calls.** Most frequently mentioned of what have to be termed the secondary suggestions is the desirability of shorter and more businesslike, but perhaps more frequent, calls by salesmen on shippers.

"Stick strictly to business; make shorter calls more frequently," says W. A. Shirling, assistant general traffic manager, Stewart-Warner Corp., Chicago. He adds that "many sales representatives waste too much time in talking about sports, their family life, and their experiences in extra-curricular activities." "Sales calls are a waste of time if the salesman has nothing to talk about except last night's ball game," agrees M. B. Rodbell traffic manager, National Industries, Inc., Odenton, Md.

"There are still too many who would visit excessively on their call, if they are not politely terminated," is the comment of D. C. Ward, transportation manager, Hoerner Boxes, Inc., Keokuk, Iowa. "If they drop by just to make a call, and to see if there is anything they can do, and find there isn't, then is the time to leave." H. J. Rogers, director of traffic, Heublein, Inc., Hartford, Conn., also thinks that, in many instances at least, "solicitors should endeavor to cut down on the duration of their visits."

A. S. Daviau, TM, Mennen Co., Morristown, N. J., suggests "better planning of time, and making appointments to save time for both seller and buyer."

● **Better liaison.** Another great need, in the opinion of a significant number of Poll respondents, is better liaison between freight salesmen and other departments of their own companies.

H. G. Armstrong, assistant director of traffic, General Mills, Inc., Minneapolis, calls, for example, for "a better line of communication between traffic and operations, so the salesman has an opportunity better to help solve shippers' problems. Too often we have to go beyond the salesman to get anything accomplished. As a result, he has less to offer when he calls looking for business."

Virtually the same point is made by A. M. Cloninger, director of transportation, Great Northern Paper Co.,

An educator's view: 'Some things need emphasis'

Kent, Ohio

To the Editor:

I note with great interest the Traffic Poll report on page 29 of your April 25 issue, on the inevitably continuous discussion as to the adequacy of the selling of freight services. As one who had 21 years of service in the Freight Traffic Department of the Pennylvania, most of it out on the firing line, I have some basis for evaluating the subject and the continuing discussion which seems to be necessary.

There is much of value in your survey, but there are some things which need emphasis.

1) It is true that as complete a knowledge as possible of the customer's transportation service needs is essential, but there are those who give the impression that this should be obtained on the first call. Rather, it is a matter of continuing accumulation over a never-ending period; it will only create antagonism for the new salesman to try to remedy deficiencies in the record at one fell swoop.

2) The salesman should make it a point to offer something constructive, something which the transportation specialist can use in his work, rather than miscellaneous and inconsequential drivel which has no appeal.

3) Too frequent personal calls defeat their purpose. Properly employed, telephone calls, as mentioned elsewhere in your issue, provide a proper and effective functioning.

4) The salesman cannot be held accountable for deficiencies of the upper management echelon in failing to advise him of developments, although this by no means relieves him of responsibility for accumulating as much as he can on his own initiative.

5) I think it may well be said that frustration of salesmen sometimes arises because of a newer arrival in the agency being promoted more quickly, not because of being more personable or doing a more effective selling job, but because he has "contacts"—family, collegiate or otherwise—which, shall we say, accelerate his progress beyond his just desserts The engineering field, where an apprentice may start as a rod man or "gandy dancer," and in not more than six months starts zooming upward, furnishes a comparable situation in that area. If a sales and service salesman, after working diligently and effectively over a period of years, sees a procession of district managers parade through the office, who can blame him for being frustrated? I say: Recognize merit, and do not depend so much on someone back at the head office pulling the strings.

6) The consensus of your Poll is that "railroads have shown the greatest improvement." I question this, and suggest that their bird dogs and talent scouts are being unrealistic if they overlook the possibilities in campus recruitment. The rate of improvement in the caliber of motor common carrier sales and service employees has been, I surmise, greater than in the railroads.

NEWTON MORTON
Associate Professor of Transportation
Kent State University

[*Shipper comments, as quoted in the accompanying second part of the Poll report on freight service salesmanship, bear out much of what Prof. Morton writes.—Editor*]

New York, who suggests "improved spoken and written communication between such internal [railroad] departments as marketing, sales and pricing. With this established, much better communication of important information can then be supplied to the railroad's customers."

The same general idea is expressed also by W. S. Franklin, director of traffic, Brown Forman Distillers Corp., Louisville: "Freight salesmen now have better tools to sell with, and the responsibility of doing so, but they do not have sufficient authority to follow through on the service performed, and do not have adequate liaison with operating departments." A. M. Rogers, director of traffic, Scovill Mfg. Co., Waterbury, Conn., is another respondent who believes salesmen need to be "backed up by cooperation within their own organization."

Inadequate liaison between departments, or inadequate transmission of information to shippers, may be due to "handling everything through machine reports, which are often misleading, in place of personal contact," suggests H. H. Kohn, TM, Linwood Stone Products Co., Davenport, Iowa. "Modern methods," he concedes, "are giving quicker and better information on shipments in transit. But often, while our plant superintendent is crying for cars the railroads, operating from reports, want to reduce our pool. Years ago we talked these matters over, and everybody was in closer touch. Machine reports should be checked with the local situation before being acted on, because each shipper has a different problem."

● **'Keep shippers informed.'** Lack of adequate liaison is reflected, other shippers suggest, in the too-frequent failure of salesmen to keep customers adequately advised of latest developments concerning their companies' facilities and services.

"We read elsewhere" about them, says W. E. Maley, director of distribution, U. S. Borax & Chemical Corp., Los Angeles. He attributes this to the fact that "many individual companies still don't keep their salesmen posted."

Another respondent who asks not to be quoted by name writes that "we traffic managers are supposed to keep abreast of changes. But I have known cases where important moves have been made and sales representatives have never made mention of them. They have been items worth mentioning regardless of the fact that we should know. There can be some such cases that get by us. Certainly no offense would be created by broaching the subject. Too many salesmen just come in to say 'Hello,' 'How's business,' 'Thank you,' 'Good bye.' The exceptions who are on the ball are the men who prosper."

W. R. Hart, TM, Building Materials Division, Evans Products Co., Portland, Ore., thinks it is important for salesmen to keep shippers posted on anticipated changes in rates or services that will affect the shipper's company. And R. T. Smith, director of traffic,

(Continued on page 76)

GUS WELTY'S **LINES ON LABOR**

WELTY

SATCHEL PAIGE, probably the oldest man (and perhaps one of the best) ever to pitch major-league baseball, had a quick reply whenever somebody ribbed him about his advanced, if uncertain, age. "Never look back," Satch used to say. "Something might be gaining on you." The principle did Paige well for a good number of years—and it did the trick again last week for Burlington President Louis W. Menk. Menk applied Satchel's philosophy before an audience made up of rail labor leaders—and he did it with double-barreled purpose (1) to point out that change in railroading has been not so much for profit as it has been for survival, and (2) to promote the idea that railroading still offers rewarding and challenging career opportunities.

IT ISN'T OFTEN that a railroad president has the chance to talk—with straight talk—to union people. Menk was given the chance—by the Brotherhood of Railroad Signalmen—and he made the most of it, in appearing before BRS grand-lodge officers and general chairmen in Chicago.

BURLINGTON'S PRESIDENT was emphatic. The industry's technological advances, he noted, "were not made solely in the interest of railroad earnings, important though they are. It is no exaggeration to say they were made in order to survive. . . . [But] we're going to have to run even harder to stay even." This is the reason, Menk told BRS officers, "why every railroad today is taking a hard look at everything it is doing, trying to see if there isn't a better way. Or trying to determine if what we are doing is necessary or if it is only a vestigial habit or custom left over from the days of steam. Our course of action seems to be this: We can be alert railroaders, or tired pallbearers."

WITH ALL THIS IN MIND, Menk declared, "one of the biggest changes in railroading . . . is the opportunity this industry offers young men, and especially those young men who choose to enter upon a career in signaling. If ever there was a growing field, one that is in its infancy, this is it."

THEN CAME THE PITCH, which every management ought to be making to its union officers and which every union ought to be receptive to—the need for joint action to keep the personnel pipeline flowing. Said Menk: "You know the type of young men we need for the future. You can help your industry by being on the lookout for him."

VALUE ANALYSIS was the topic, Valspar's C. D. Gallagher was discussion leader as P&S Division spring meetings closed.

P&S: Keeping a look-out for change

Purchasing men picked up valuable information on materials management at spring meetings. They'll go further this fall.

Purchasing agents and storekeepers are gearing up now for an autumn series of regional meetings—after completing a spring series that produced notable results.

Earlier this year, the Southeastern Region of the AAR Purchases & Stores Division met in Mobile and the Eastern Region crowded into Pittsburgh. Earlier in May, the Western and Southwestern groups met jointly in Kansas City, and last week the Far Western organization rounded out the schedule with a two-day session in Denver.

In the spring series, two things stand out:

—The emphasis on railroad P&S studies of outside-industry's methods and techniques in material control and management.

—The quality of seminar-type discussions which, perhaps, hit its peak at the Western-Southwestern meeting in coverage of value analysis and inventory control.

In the four regional sessions, P&S men have observed material-management in four different situations—at Scott Paper; at Pullman-Standard's Butler, Pa., carbuilding plant; at TWA's overhaul base at Mid-Continent International Airport in Kansas City; and, finally, at NORAD near Colorado Springs. Some procedures are viewed as applicable, some are not—but from all indications the briefing meetings, and particularly the one at TWA, are producing a new surge in the P&S men's quest for a better way.

As for the discussions, few have prompted so high an interest- and participation-ratio as the seminar on value analysis conducted by Charles D. Gallagher, director of purchases for Valspar Corp. at the Western Southwestern regional meeting.

Defining value analysis as an "organized, systematic approach for evaluation," Gallagher outlined a six-step process for putting a program in motion—from an orientation phase through information, speculative, analytical and planning-and-evaluation phases to a final step, an execution or action phase.

Valspar's chief purchasing officer hit several stress points in his presentation:

—The need for a willingness to adapt to change, even though the normal resistance-level to change is high.

—The need for active response, or the attitude that doing something is better than sitting around wondering what to do and, consequently, the doing of nothing.

—The requirement for liaison with the people who will be affected by value-analysis programs and, if possible, the securing of their participation.

—The psychological advisability of starting a program with an investigation in which success is almost guaranteed, because of the morale- and incentive-building aspects inherent in such an approach.

All phases of a VA analysis are important, he noted—but he laid particular emphasis on the informational and speculative areas. First of all, Gallagher noted, it's vital that all available information about a device or product be developed—and then it's equally important that "brainstorming" be given free rein so that all possible ideas can be tossed out for consideration in the search for a better way.

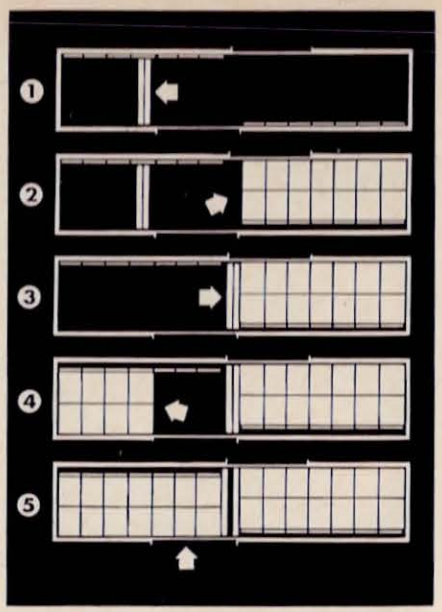
Then, in the analytical phase of VA, "we have to sort out the ideas from the previous brainstorming session to arrive at the best over-all result. Review the ideas. Accent the positive and eliminate negative ideas. Put a dollar sign on everything."

Next move, Gallagher pointed out, is to plan and evaluate: "Follow up by making a plan of the steps necessary to carry out the one or two possibilities arrived at in the analytical phase—and pick one."

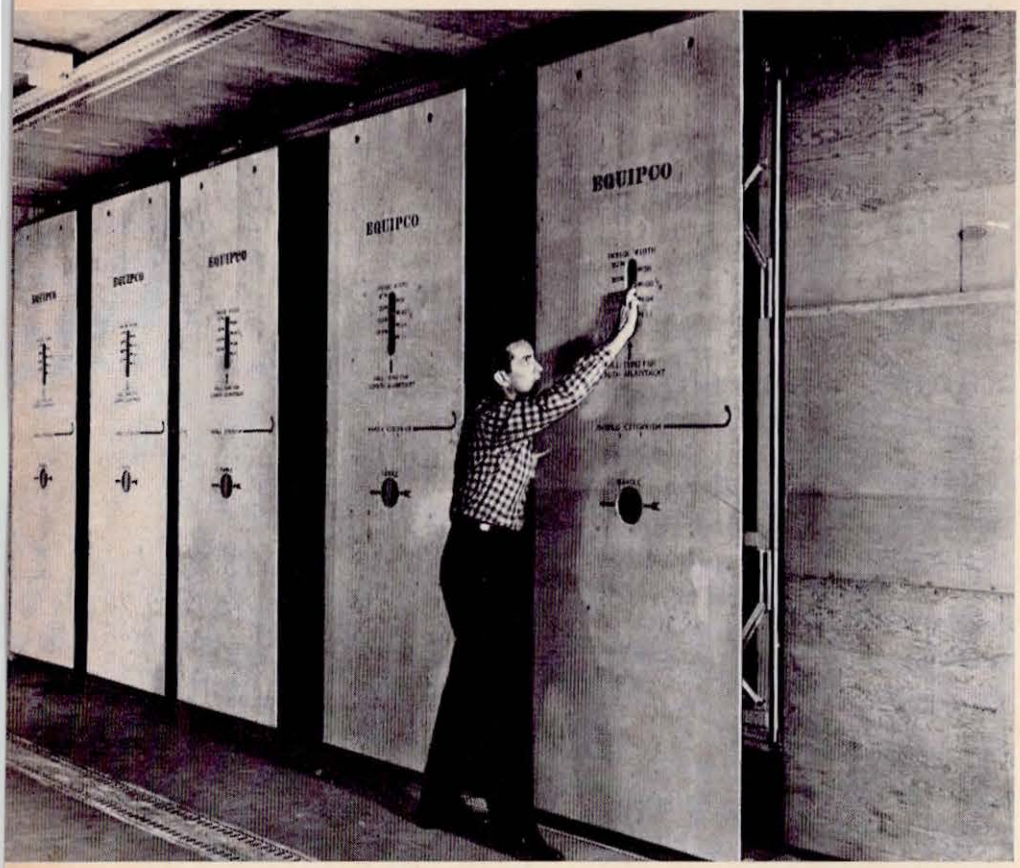
And finally, there comes the execution—the writing of a proposal, with supporting data, and the submission of a plan to those who must approve it.

Next up on the activity list for the P&S Division will be a series of autumn meetings—all looking toward the next consolidated Division meeting to be held in October 1967. ■

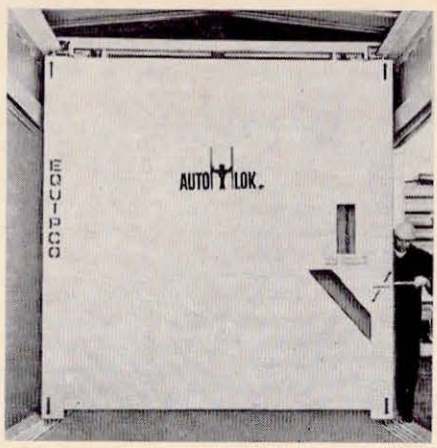
How to load more pallets per car



UTILIZING A "FULLOAD" CAR to maximum pallet capacity involves five steps: (1) Dividers are moved out of the way and one end of the car is loaded with 28 pallets, two high; (2) both dividers are moved against the load; (3) other end of car is loaded with 16 pallets, also two high, leaving 12 ft for lift-truck clearance in one doorway; (4) the final 12 pallets are moved straight into doorway against pre-adjusted sidewall filler (dash line); and (5) second divider is locked tight against left-end load, by using side-operating handle from outside the car.



LONGITUDINAL ADJUSTMENT FEATURE of 8-PL side filler is a major factor in the "Fulload" system. Bulkhead has eight width positions and 18 in. of longitudinal adjustment to extend side support through entire length of load.



SLIDE-THROUGH HANDLE enables operator to maneuver load-dividing and load-restraining bulkhead from outside the car. Self-locking partition is said to be fast and easy to operate. It can also be handled from inside the car.

What is described as a "new concept in palletized load engineering" is said to increase the number of pallets which can be loaded into a freight car.

"Significance of the new development," says the manufacturer, lies in the fact that, "in most standard 50-ft cars the average number of pallets presently loaded by most shippers is 46. This is caused by the difficulty of safely supporting palletized goods in the doorway area. By affording safe, efficient usage of this doorway area, the new Equipco 'Fulload' system permits loading a comparable car to its maximum possible capacity of 56 pallets."

Resultant benefits, aside from increased utilization of available cubic space, are said to include greater protection for lading and substantial savings in load-unloading time.

● **Three factors.** The "Fulload" system, developed by Equipment Specialties Division, Unarco Industries, Inc., Chicago, has three characteristics:

1) Use of 12½-ft car doors, in offset or staggered positions;

2) Use of Equipco's new "Auto-lok" load dividers; and

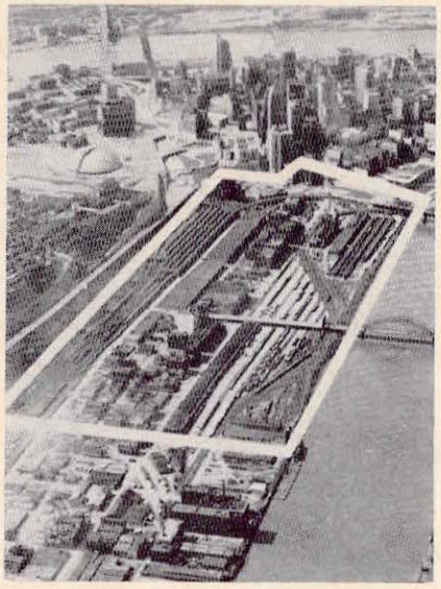
3) Use of the same company's 8-PL side fillers.

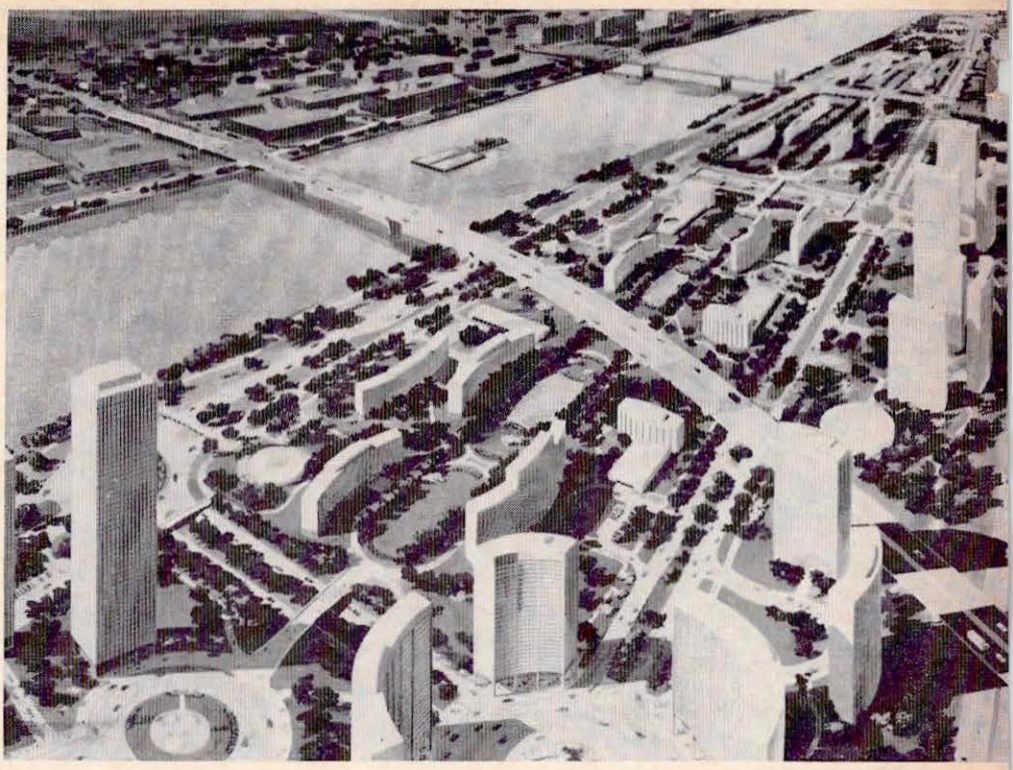
The completely self-locking load dividers, or bulkheads, can be operated from either inside or outside a car, thus eliminating any operating clearance between them. In practice, they may be butted flush together, back to back. A chain drive facilitates movement of the bulkheads, and insures that they remain perfectly vertical at all times, without swaying or binding. A special pull-out handle provides for their control from outside the car.

The side fillers allow for eight different width positions within a car, and, in addition, provide up to 18 in. of longitudinal adjustment. It is this latter feature which makes it possible to extend side support throughout the entire length of a load, including doorways.

Method of loading a car fitted with the "Fulload" system is shown in the accompanying diagram. ■

THE PROPOSED PENN PARK area is outlined in white in this aerial view of downtown Pittsburgh. An artist's conception of the completed project is shown at right.





PRR plans a giant renewal project

Penn Park—a 148-acre development of office buildings, high-rise apartments and educational facilities—will be created on a site adjoining downtown Pittsburgh's famed Golden Triangle.

Pittsburgh and the Pennsylvania Railroad have known each other for more than a century, and during that time they've had a strong influence on each other.

The PRR in 1852 was credited with helping lay "the steel foundations of America's industrial empire," and the great steel center, in turn, contributed much to the growth of the giant Pennsy system.

Today, both the city and the railroad take a kind of sentimental pride in their long relationship. The feeling is that it's more than railroad ties that bind the two together.

● **Comes the renaissance.** In the past, the railroad has been quick to implement physical changes prompted by growth of the city. It removed tracks from congested areas, built elevated lines to aid auto traffic flow where necessary, (and later tore them down when they became an eyesore to a riverfront beautification program), and has pretty much kept in step with the city's plans to erase its long-standing image of soot capital of the world.

In the past 15 years, Pittsburgh has been hard at work tidying up a former industrial slum area on a point of land where the Allegheny and Monongahela rivers meet. What has emerged so far is a glittering, multimillion dollar complex of new office buildings, hotels, restaurants and other facilities in what has become known as the "Golden Triangle." The principle building project, the Gateway Center, is credited with stimulating the physical revival of downtown Pittsburgh, in which some 55 major new structures have been built in the past 18 years.

● **PRR's piece de resistance.** While progress to date has been impressive, a renewal plan unveiled by the Pennsylvania early this month is really an eye-popper.

What the railroad proposes to do is to clear a 148-acre, 40-square-block blighted section of the city and build, in its place Penn Park, one of the most extensive—if not the largest—single downtown renewal projects anywhere. It will extend the Golden Triangle and will be six times as big as Gateway Center.

When fully developed, a large part of the area will remain open space—gardens, lawns, woodlands, parks and thoroughfares. Office, high-rise apartment, research and educational buildings will rise from predetermined locations in the park as the market for development is generated.

The Pennsy for years has owned approximately 80% of the land area involved and is in the process of acquiring the remaining properties.

Creation of Penn Park will necessitate the razing over the next several years of such landmarks as Pennsylvania Station and the Allegheny River railroad bridge with its elevated approaches.

Removal of the bi-level railroad bridge over the Allegheny, together with the approach to it from Pennsylvania Station, will erase both a physical and psychological barrier to extension of the Golden Triangle, it was pointed out. Trains now moving over the river will be routed through the Fourth Avenue tunnel and over the Monongahela River. Chicago trains will use an existing Ohio River bridge to connect with their main line.

All freight tracks of the PRR's so-called Allegheny Valley Railroad in The Strip will be removed, together with about half of the tracks in the passenger yard serving Pennsylvania Station. Air rights developments over remaining tracks will be projected similar to those the road has under way in several other cities. ■

RECENT 'PICNIC IN THE WOODS' arranged by Seaboard Air Line was attended by hundreds of businessmen, U.S. and state

Seaboard's forestry program pays big traffic dividends

Development work in forestry is part of effort to build up industrial economy of road's area.

The sixth annual forestry tour of the Seaboard Air Line had a passenger list that read like "Who's Who in Industry and Politics." These "picnics in the woods" have become a favorite annual meeting place for executives of industry, for railroad executives and for the political bigwigs of the state in which the excursion is held.

● **Program will continue.** In holding this year's excursion in Alabama, the Seaboard completed the list of the six states in which it operates—all of them important producers of forest products. The annual tours have become so popular, however, that they will be continued. For example, some 500 executives attended the dutch treat dinner in Montgomery and there was an attendance of more than 800 on hand at Cottonton, Ala., 70 miles east of Montgomery.

The special train that took many of these persons from Montgomery to Cottonton and return, on the Montgomery-Savannah line, was the first passenger train seen on that heavy tonnage freight line for some 30 years. The natives looked at it in as great excitement as though an unidentified flying object was passing through their farms and towns.

● **Twenty-nine states represented.** The executives came from 29 states, with large delegations from Chicago and New York. There were 3 chairmen of the board in attendance, also 23 presidents, 20 executive vice presidents and 71 vice presidents, several of the latter being vice presidents in charge of traffic for their companies. Also attending were 11 general traffic managers of large national companies and 12 directors of traffic and transportation.

Governor George C. Wallace of Alabama welcomed the party out in the woods near Cottonton. The lieutenant governor was in attendance, along with the state forester and the director of the State Planning and Industrial Development Board. Some 43 members of the Alabama State Legislature were there, as well as two U.S. Congressmen. Federal officials also included the assistant to the Secretary of Agriculture and the Chief of the Forest Service of the U.S.

What's the occasion?

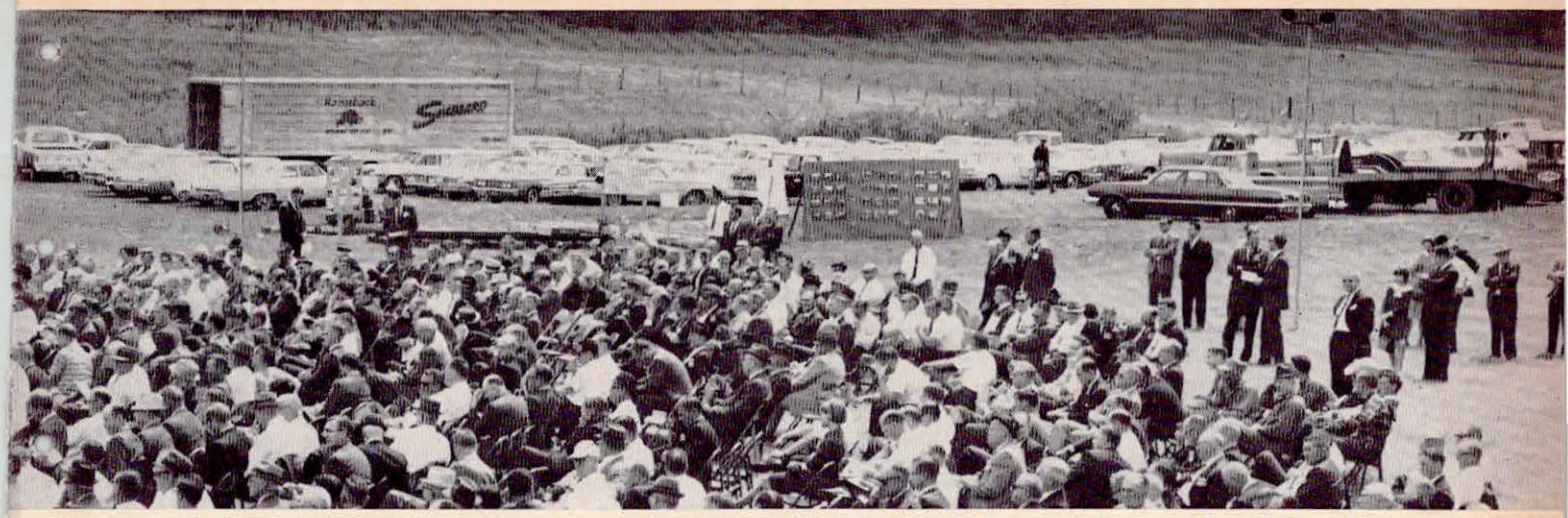
What brings such a group of VIPs as this together? Inquiries made of 18 of the executives who have attended all six of the Seaboard's forestry trips brought the same response. The opportunity, once a year, to meet their friends and competitors under comfortable and relaxed surroundings, while, at the same time, viewing progress in the forest industry.

● **Based on SAL study.** The genesis of the present trips and several informal ones which preceded them was a study made by the Seaboard in the late 1920s in the course of intensifying its efforts to build up the industrial economy of the territory it served with a view to increasing rail tonnage.

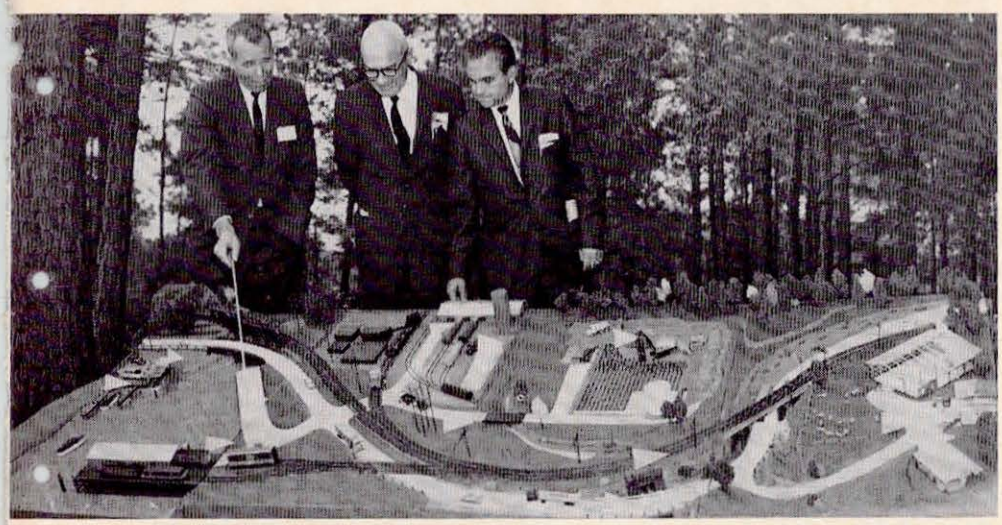
The conclusion of the study was inescapable: The greatest potential for increased tonnage lay in the forest resources of the area. A large part of the Seaboard system consisted of lines originally built to serve logging and sawmill operations. These companies in the main, however, had pursued a "cut out and get out" policy, with no interest in or conception of modern practices. The result was that the South's supplies of virgin timber were cut out in about half a century, or destroyed by uncontrolled fires.

By the end of the second decade of this century, the big stands of virgin timber had all been cut. The large sawmills were forced to close down, leaving lumbering operations largely to small mills of the portable type, which could root out the small patches here and there that had been overlooked. Numerous communities throughout the South became virtual ghost towns as the result of the disappearance of the logging companies' payrolls.

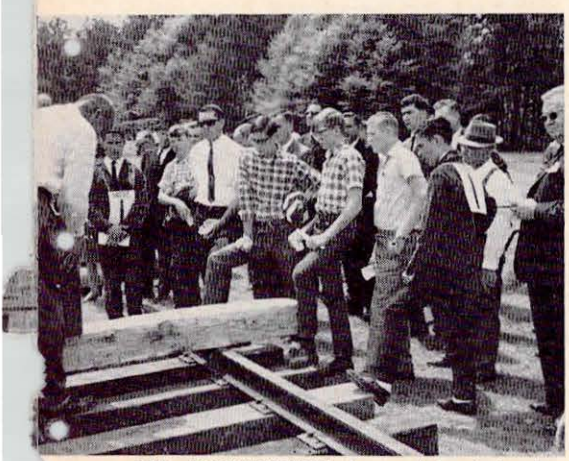
● **Pulp and paper industry.** At about the time the Seaboard and other interested agencies began their studies, the development of the pulp and paper industry was beginning to be felt in the Southeast. Nothing could be done to replace the former magnificent stands of timber. But the inherent forest



foresters and others. Robert Hoskins, general manager of the road's industrial development department, welcomes the group.



MODEL OF NEW WOOD-TREATING PLANT is explained by Foster K. Bradley (left), regional sales manager, U.S.S. Chemicals, division of U.S. Steel, for J. R. Thorne (center), SAL executive vice president, and Governor Wallace of Alabama.



TIE PRODUCTION is explained to forestry students by E. L. Kidd of the Seaboard's tie and timber department.

resources of the area were in fast-growing species of timber suitable for pulpwood that thrived in the fertile soil, with ample rainfall and a long growing season. With adequate fire protection, southern pine could reach pulpwood size in 15 to 20 years.

The current annual picnic in the woods is the outgrowth of intensive efforts made over the years by the Seaboard to promote forestry in the Southeast. The research that had been continuing discovered how to use southern pine for the production of paper other than kraft and sulphate and found it could be used in the manufacture of fine paper, rayon, cellophane and kindred products.

● **Fast-growing industry.** As a result, between 1935 and 1940, 15 large mills were built in the Southeast. There are now more than 80 pulp and paper mills between Virginia and Texas. The executives at the Seaboard's picnic are building four or five more in Alabama alone. Annual production of the mills in the South now exceeds 20 million tons of paper and board and this is rapidly increasing. For example, it's estimated that, in 1968, the south will be producing 10½ million more cords of pulpwood than were turned out in 1964.

Prior to the coming of the pulp and paper mills to the South there was relatively little demand for second growth timber. Traffic in this commodity handled by the railroads was minimal. As recently as 25 years ago, second growth pine timber could be purchased on a stumpage basis for as low as 50 cents per cord. With the new markets, the stumpage price per cord today is $5 and up, depending upon location. All of this has caused a tremendous growth in tree farming.

Preparations for the increased demand were under way some 15 or 20 years ago, in view of the length of time it takes to produce even pulpwood trees for marketing. As a result, J. M. Stauffer, state forester of Alabama, was able to tell the assemblage that his state now has more acreage under timber than when white men first entered Alabama.

● **SAL is acclaimed.** Speakers from various industries all predicted additional amounts of timber as an essential, not only for pulp and paper mills, but also for such blossoming industries as plywood, veneers, furniture, poles, piling and lumber. They also stressed the part that the far-seeing policy of the Seaboard Air Line has played in the development of forestry in the six states the railroad serves. SAL organized a well-staffed forestry division in 1936, to work within the industrial development department for the benefit of wood-using industries, to work with state forest agencies, the U.S. Forest Service, farmers and land owners generally in promoting sound forestry practices to meet future needs. One of the big problems of the forestry department was to convince landowners that timberlands can be operated profitably on a sustained yield basis.

It operated a "Conservation Special" that was a schoolhouse on wheels for timber farmers, and carried on demonstrations of fire prevention and other sound forestry practices. It holds forestry demonstrations at strategic points. These attract up to a thousand people.

The "picnic in the woods" is the out-

growth on the executive level of such demonstrations. Robert Hoskins, general manager, industrial development department, Seaboard Air Line, organizes and conducts the meetings. He's well qualified in forestry, since he was the SAL forestry department manager before assuming his present post.

As pointed out at the woods meeting by Edward P. Cliff, chief, U.S. Forest Service, and others, the South's role in forestry has shown tremendous growth and this growth has only just started. Total forest acreage in the six southeastern states served by the Seaboard amounts to 113 million acres, or a little more than 60% of the total land area in those states. Farm woodlands, with small ownership predominating, comprise 57% of the timber holdings. There are more than 800,000 such holdings in the area.

● **Youth-training is essential.** Important to the entire training program is the training of youth. In welcoming the delegation to his state Governor Wallace described the youth education program that is under way. Alabama's state department of education has a large and active vocational agricultural education subdivision, with training in forestry one of its major interests.

The Seaboard, as long as 21 years ago, began an educational program with the farm youth of the Southeast that was described by U.S. Congressman George Andrews, in whose district the meeting was held, as having profound results. An important phase of this educational program by the Seaboard was the inauguration of forestry contests in each of its states. Cash prizes are awarded to the winners under rules set up by the railroad's general forestry agent in conjunction with the state forest agencies and the Future Farmers of America. In addition, cash prizes are awarded to the teachers of vocational agriculture from whose classes the winners were selected.

More than 85,000 youths are reached directly by these programs every year. Top winners in the contests are taken to Kansas City each fall to the national convention of Future Farmers of America where they appear before civic and business organizations to tell of individual projects and encourage other youths to follow suit. These appearances have been extended to include other cities. The program also includes the publication of a Forestry Bulletin—the first of its kind in the country—which reaches 100,000 persons regularly with messages on forest conservation.

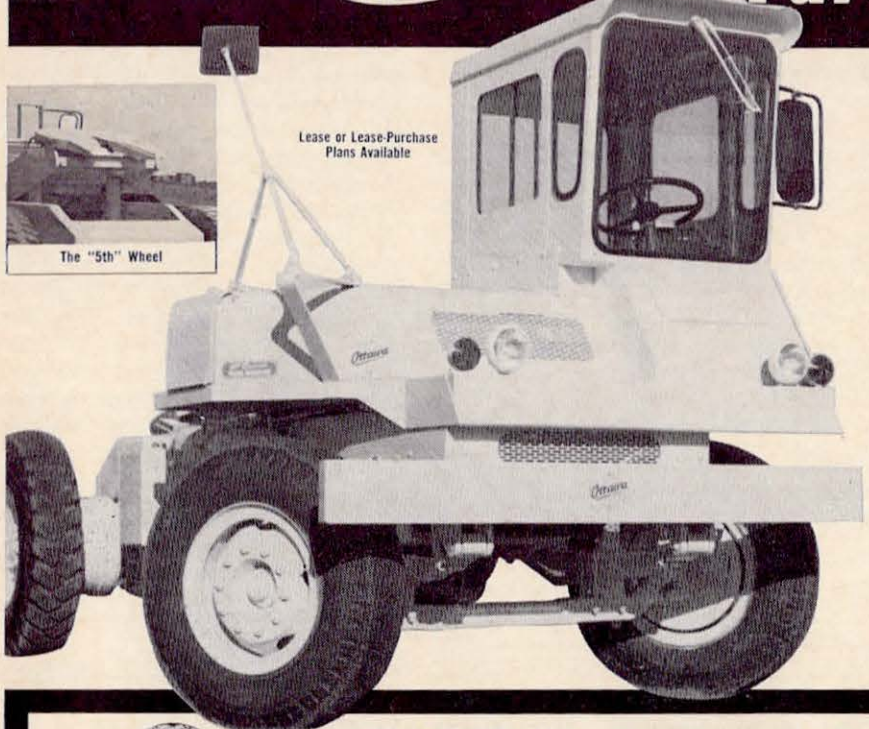
● **Timber need will double.** Despite the immense growth in forestry in the South during the past two decades, it was the consensus of the country's foremost authorities, in attendance at the "picnic," that the area has realized only a fraction of its potential in timber growing. The U.S. Forest Service announced its estimate that the demand for forest products will double within 20 years.

According to E. V. McSwiney, executive vice president, Georgia Kraft Co., which is building a huge mill at Mark, Ala., a few miles from the picnic site, this demand can be met only with the general adoption of intensive and sound forestry practices and the promotion of forestry education by all industries concerned.

So far as the Seaboard is concerned, J. R. Thorne, executive vice president, told the assemblage: "It is our objective now, as it has been for nearly 30 years, to conduct a complete and comprehensive forestry program and step it up to contribute to the fullest possible extent toward the achievement of fulfilling the increased demand for forest products." ■

OTTAWA Commando® Yard Hustler

Lease or Lease-Purchase Plans Available



...FOR '66...

A NEW PRIME MOVER DESIGNED TO SPOT, JOCKEY, CLASSIFY & SHUTTLE TRAILERS FASTER, MORE EFFICIENTLY FOR LESS COST

The Commando Yard Hustler has a short wheelbase and is an easily maneuverable, heavy duty truck-tractor with high-output power train and the correct range of power and speeds to handle all jobs at peak efficiency and maximum economy. The heavy duty Allison MT40 automatic transmission gives smooth starts and stops, making it ideal for shuttle service or short haul operations. No down time from broken clutches with this device. The Commando Yard Hustler has 72 inches clearance between the back of the cab and center of kingpin hole in 5th Wheel, making it possible to handle all trailers with normal kingpin settings. Trailers with front mount refrigeration units have no clearance problem with the Commando Yard Hustler. Its hydraulic lift system assures stability in all height positions. A single lever, cab controlled, instantly adjusts the 5th Wheel height to match the trailer kingpin and also raises the trailer. Loaded trailers may be raised "on the go", or standing still.

The Ottawa Commando Yard Hustler is an operator's dream. Steering, shifting and 5th wheel are hydraulically operated and all controls are conveniently located at his fingertips. No clutch to operate. The unique cab-forward design gives the operator extra good visibility in the right front wheel area, which usually takes a bad beating from conventional truck-tractors. Operator reaches out the back window to hook up trailer brake lines and light cable. Comfort features include: All weather cab; adjustable, torsion-ride seat; full lighting equipment with optional heater and defroster available if desired.

Investigate the huge savings in time, manpower and maintenance which are possible by utilizing the advantages offered by the new Ottawa Commando Yard Hustler for '66, in your operation!

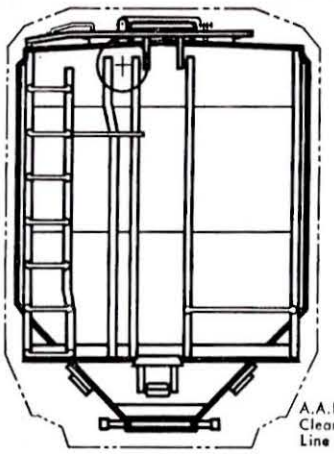
Ottawa®

OTTAWA STEEL PRODUCTS

Daybrook - Ottawa Corporation

1313 NORTH HICKORY STREET • OTTAWA, KANSAS 66067 • PHONE: AREA 913-242-2200 • TWX: 913-242-2991

Circle 60 on reader service card



Round hoppers don't fit square clearances. For the highest payloads within the shortest lengths, go square with PS Covered Hoppers. By Pullman-Standard.

A DIVISION OF PULLMAN INCORPORATED

PS

WORLD'S LARGEST RAIL CAR MAKER
200 South Michigan Avenue, Chicago, Illinois 60604

Circle 20 on reader service card

durable aluminum

Hopper cars are built of Dow aluminum. Why not rolling pipelines?

Nobody's asked us yet.

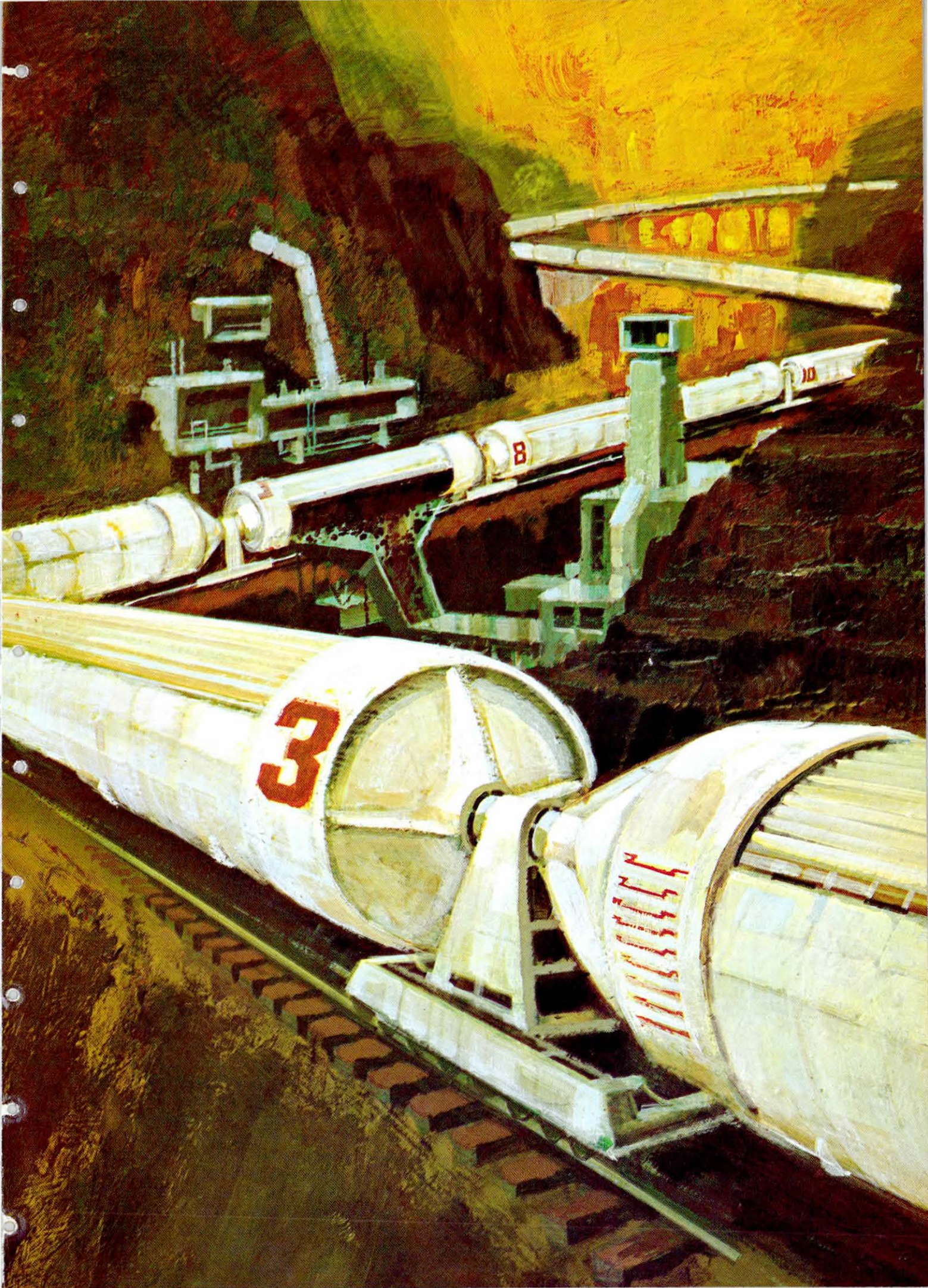
When somebody does, we'll work on it. The continuously circulating unit train is one of the exciting new railroad ideas. And that's just the kind we like to get involved with.

We've already done some pretty exciting things. Like designing and making an aluminum center sill for the new, all-aluminum rapid transit cars being built for the Port Of New York Authority's Trans-Hudson "PATH" system. The sill weighs only 1,785 pounds—about half the weight of a similar section made of steel.

Solving special problems and working on new concepts are our strong suits. We can't claim to be the biggest, but we're as versatile and inventive as anybody in the business. Maybe more so. So next time you have a big railroad opportunity, why not ask us? At the beginning, when we can do the most good.

Metal Products Department, The Dow Chemical Company, Midland, Michigan 48640.

DOW


3

THESE U.S.-BASED IRJ ADVERTISERS

are addressing a world-wide audience

AMONG 1st QUARTER 1966 ADVERTISERS IN IRJ

Rails-Trackwork-Basic Metals
- Bethlehem Steel Export Co.
- U. S. Steel International

Diesel Locomotives and Accessories
- Alco Products, Inc.
- General Motors Overseas Corp
- Vapor International
- Whiting Corp.

Freight and Passenger Car Parts
- Cardwell-Westinghouse Co
- General Steel Industries, Inc
- W. H. Miner, Inc.
- National Castings Co
- Timken Roller Bearing Co.

Track Maintenance Equipment
- Jackson Vibrators, Inc.
- Kershaw Mfg. Co.
- Orton Crane & Shovel Co
- Templeton Kenly Co.

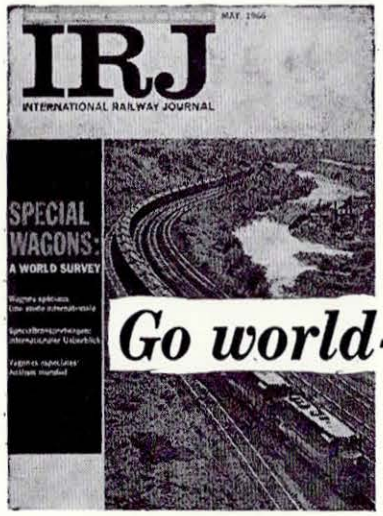
Signaling and Communications
- General Railway Signal Co.
- Transandean Associates, Inc.

Note: The above companies are domestic (U.S.) advertisers only. The full complement of first-quarter IRJ advertisers totals 83 companies drawn from all over the world.

An alert group of railway suppliers headquartered in the U.S. are telling their product story to railway officials in 108 countries through the pages of the monthly International Railway Journal.

These "Yankee Traders" of 1966 are not overlooking the favorable sales opportunities inherent in many countries whose economies are highly dependent on rail transportation. According to a recent spot survey made by IRJ covering 32 countries in Europe, Africa, Asia, Australia, New Zealand and Central and South America, capital spending programs in these areas are substantial. Certainly, the world market for a host of railway products, goods and services is lively and promises to continue so.

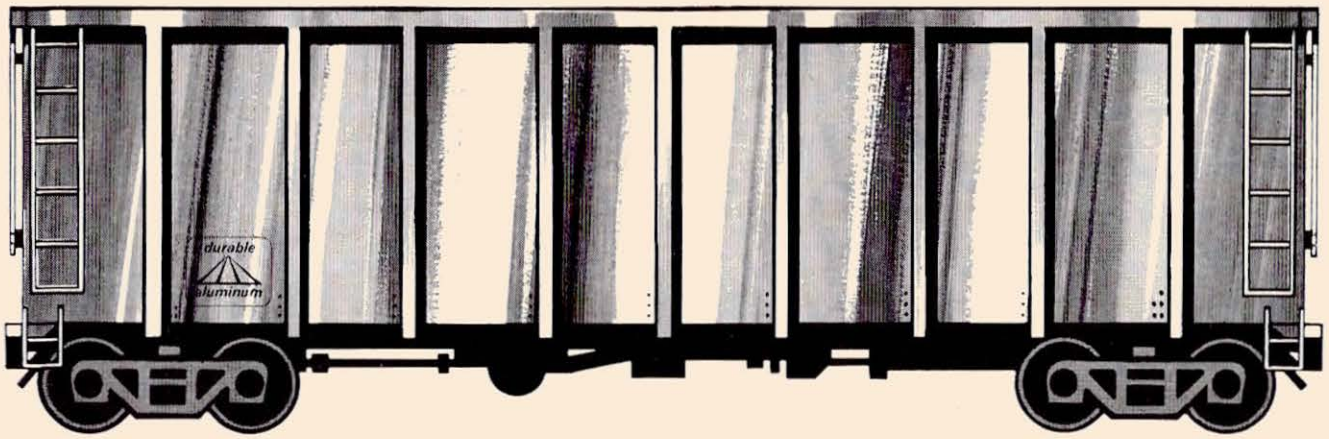
Now is the time to expand—to go after the business *wherever* you have a market. IRJ points the way—and the cost is surprisingly reasonable. Your Railway Age Group sales representative will give you all the details.



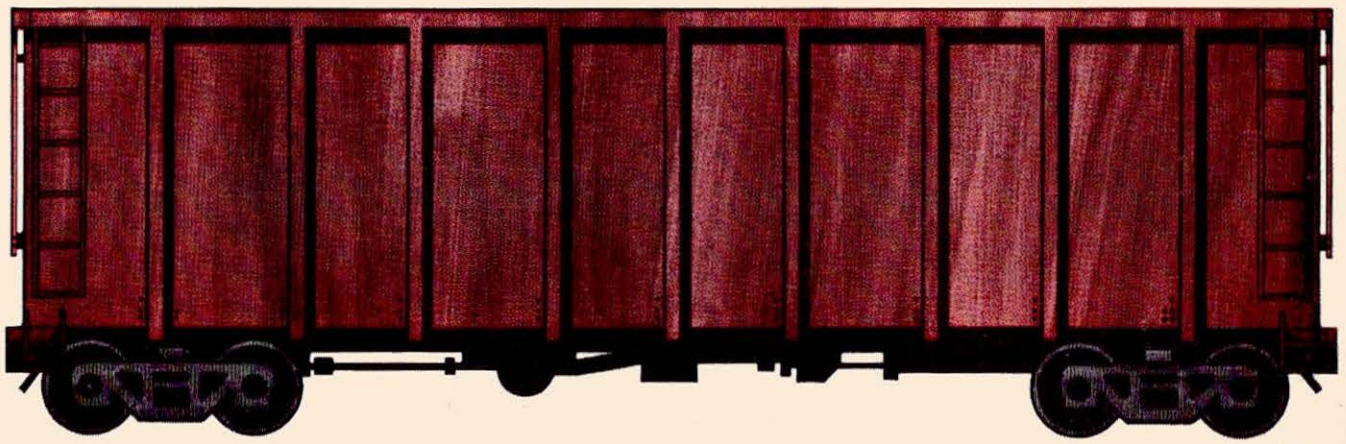
Go world-wide with IRJ!

Car shortage problem?

102 of these do the work of...



123 of these



GEARED TO PROGRESS
P R I
MEMBER

102 gondola cars made of Kaiser Aluminum haul as much lading as a train of 123 conventional steel cars, and haul it for less cost.

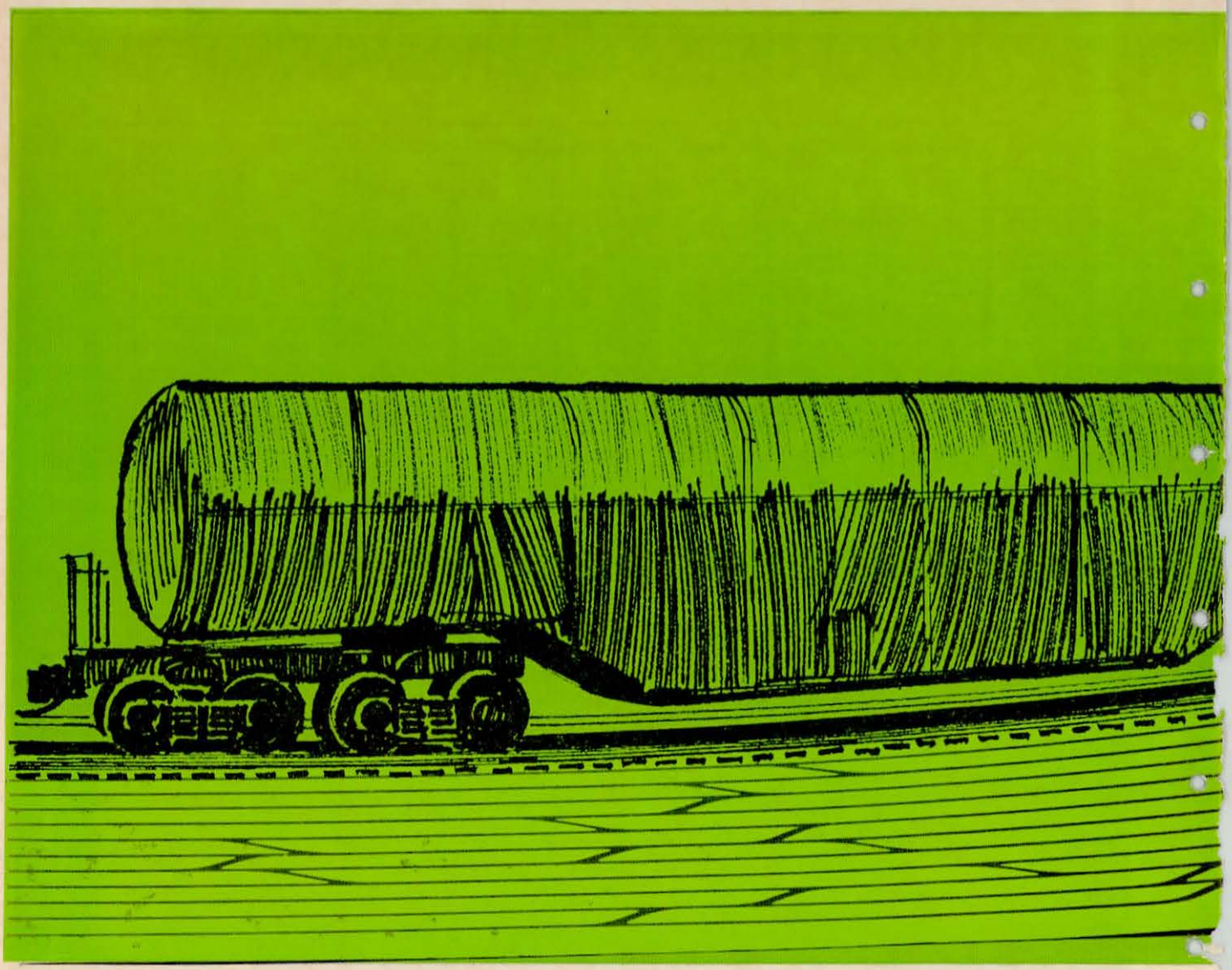
What's more, the total rail load of the aluminum train is less—by the equivalent of 3½ loaded steel cars—than that of the steel car train!

Used in rugged bauxite mining operations in Jamaica, these aluminum cars have been in virtually uninterrupted service for over ten years, despite the highly corrosive atmosphere. Extra payload provides weight saving which is the key to a higher profit return. Downtime due to maintenance is virtually eliminated because of aluminum's resistance to corrosion and abrasion.

Ideas like these in lightweight aluminum gondola cars show what we mean when we say: At Kaiser Aluminum, the idea *is* ideas! For the economic study showing how aluminum can offer a better return on *your* capital investment, write to: D. J. Donahoe, Manager, Railroad Sales, Kaiser Aluminum & Chemical Corp., 9933 Lawler Avenue, Skokie, Illinois 60077.

KAISER ALUMINUM
MILL PRODUCTS

Circle 22 on reader service card



HOW TO GIVE FLAT YARDS

Upgrading to gravity costs less when you parlay experience with a complete product line

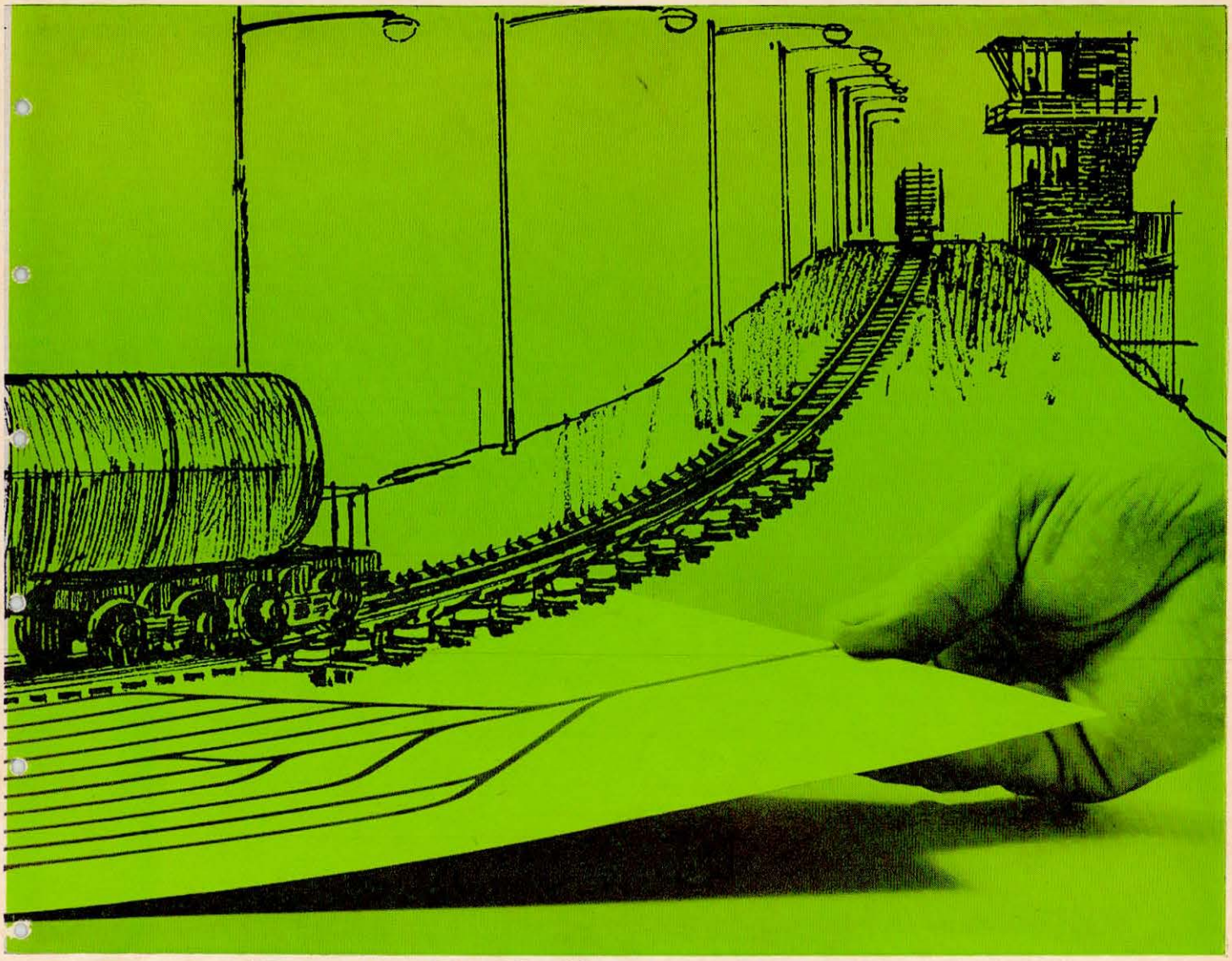
WABCO didn't discover gravity. We've just had more experience with it, having engineered and equipped 54% of all existing yards, from manual to completely automatic.

There are many "quick-and-dirty" ways to speed flat yard production, most of which either don't work or don't deliver as expected. When looking for an economical way out of a flat yard bind, it makes sense to depend on the firm with the full range of equipment—competitively priced—*plus* the experience to apply it properly. That's WABCO.

Given any set of variables—car rollability, temperature spread, traffic logistics, trimming requirements, etc.—we accurately determine hump height and design to whatever plateau of yard efficiency you specify. Our customer approach to classification problems prevents over-engineering, delivers more *usable* benefits per dollar invested.

A nominal cash outlay for flat yard improvement can mean a big increase in through-put, coupled with lower operating costs. WABCO furnishes the entire package—concept to completion—and single source responsibility for service. This in-depth capability is your assurance of increased revenues.

WABCO



A LOW-COST LIFT

WABCO'S TRACK RECORD—PRODUCT AND INSTALLATION YARDSTICKS

A few of the (63) WABCO class yards

Railroad	Yard	Type of Facility
CRRNJ	Allentown, Pa.	Manual
C&O	Stevens, Ky.	Semi-Automatic
P&LE	Youngstown, Ohio	Automatic
L&N	De Coursey	Semi-Automatic
AT&SF	Chicago, Ill. (Corwith)	Automatic
CB&Q	Chicago, Ill. (Cicero)	Automatic
SAL	Hamlet, N. C.	Semi-Automatic
PRR	Conway, Pa.	Semi-Automatic
AT&SF	Argentine, Kan.	Manual
B&O	Cumberland, Md.	Manual
L&N	Atlanta, Ga.	Automatic

A single source hardware supplier

Retarders	Control Consoles
Car Detection	Weigh Rail
Switch Machines	Continuous Speed Control
Switch Control	Track Fullness Index
Speed Detection	Climatic Adjustment Devices
Computers	Information Transfer Systems
Signals	Clearance Track Occupancy Indicator

Why not let a WABCO Union Switch & Signal Division yard survey team study your flat yard and make the recommendations needed to raise its efficiency to the level that's most profitable for you? Write Vice President, Marketing, US&S Division, Westinghouse Air Brake Co., Pittsburgh, Pa. 15218.

A NEW SWITCH IN UPGRADING FLAT YARDS FROM UNION SWITCH & SIGNAL DIVISION

Circle 64 on reader service card

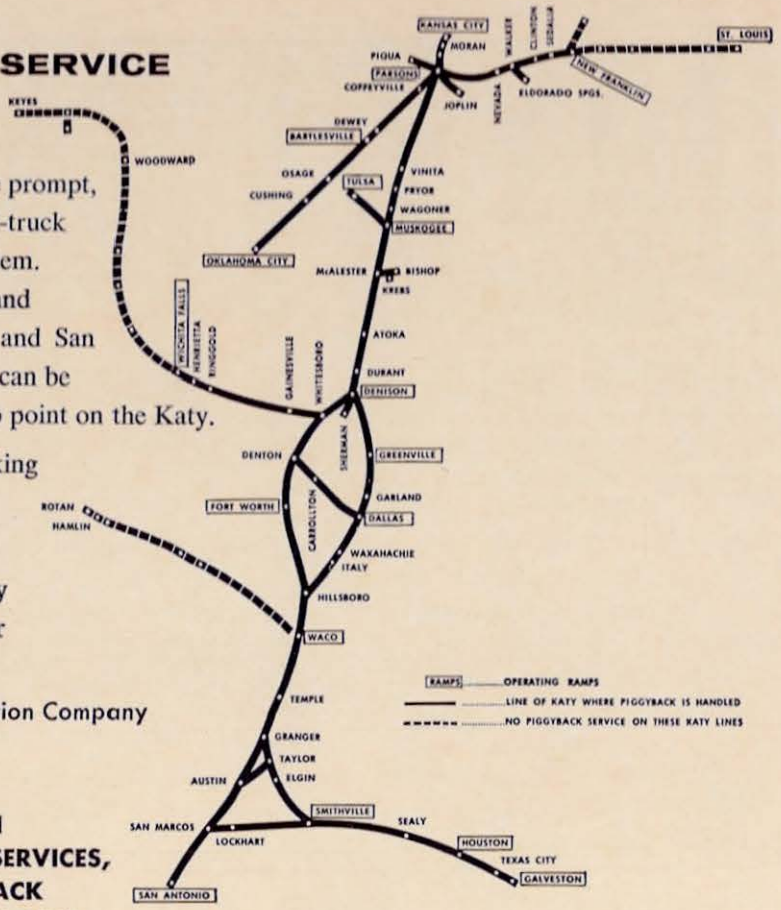
COUNT ON KATY FOR COMPLETE PIGGYBACK SERVICE

With ramps at 18 strategic locations on the railroad, Katy is equipped to provide prompt, efficient and economical piggyback railroad-truck service at substantially all points on the system. Permanent automobile loading, unloading and storage facilities are located at Houston and San Antonio, Texas. Additionally, automobiles can be handled by portable equipment at any ramp point on the Katy.

Operated by wholly owned subsidiary trucking companies, the railroad participates in all major phases of piggyback operations.

For specific information, inquire about Katy Specialized Piggyback Service through your nearest Katy Sales Office or direct to:

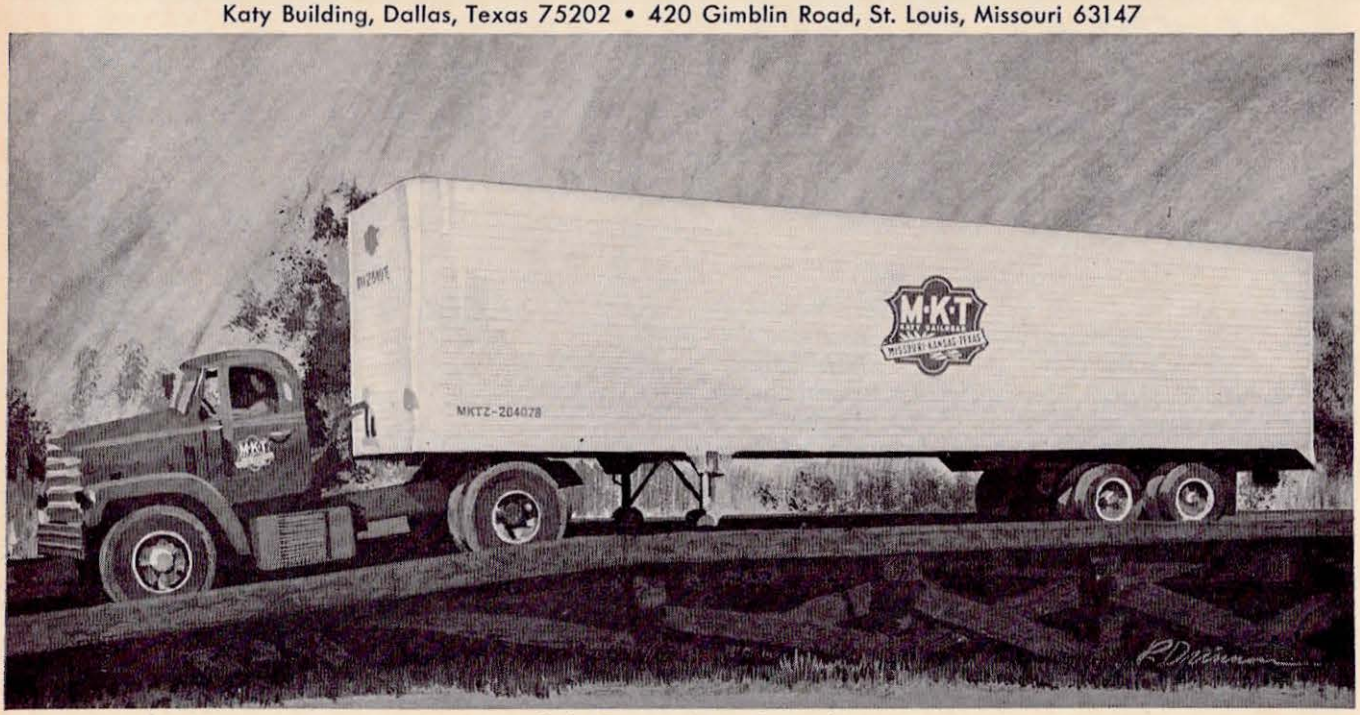
Missouri, Kansas & Texas Transportation Company
Katy Building
Dallas, Texas 75202



THE NEW FASTER DEPENDABLE TRAIN SCHEDULES, AND ADDED TERMINAL SERVICES, ASSURE YOU OF IMPROVED PIGGYBACK OPERATION ALL UP AND DOWN THE LINE. CHECK WITH YOUR KATY SALES REPRESENTATIVE FOR COMPLETE INFORMATION ON THE NEW SCHEDULES.

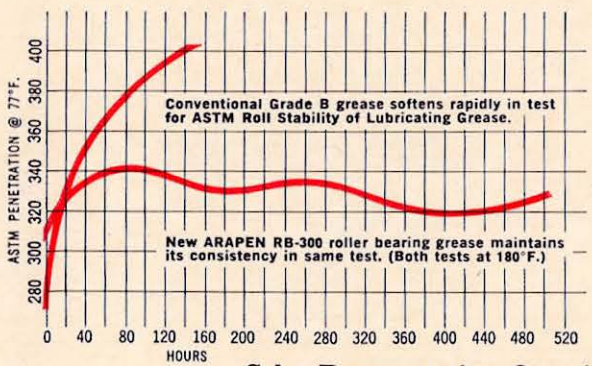
MISSOURI-KANSAS-TEXAS RAILROAD COMPANY

Katy Building, Dallas, Texas 75202 • 420 Gimblin Road, St. Louis, Missouri 63147



Circle 25 on reader service card

Do you want extra protection against a hotbox ...at no extra cost?



The extra reliability you pay for in roller bearings is only as good as the grease you use. So Humble has developed a special roller bearing grease—ARAPEN® RB-300—that gives extra protection against softening and leakage on hot, high-speed runs. Look at the chart. In an ASTM Roll Stability Test at 180° F., ARAPEN RB-300 shows only *one-fifth* as much change in penetration as a conventional AAR-approved Grade B product. And the penetration of ARAPEN RB-300 remained essentially constant for an additional 360 test hours with no sign of oil seepage. This extra protection against hotboxes costs you nothing extra. So why not have it.

For fast delivery of ARAPEN or other dependable Humble railroad products, just call our local Railroad Sales Representative. Or write to Humble, Railroad Sales, in Houston, Texas.

HUMBLE OIL & REFINING COMPANY ... AMERICA'S LEADING ENERGY COMPANY ... FIRST IN RESOURCES/FIRST IN CAPABILITY

ESSO

REPORT ON FREIGHT CAR FLOORING TESTS

Dura-Wood must be good!

The past three years have marked dramatic increases in Dura-Wood production and sales. Demand has grown steadily since RAILWAY AGE published the impressive results of special engineering tests at Lehigh University. These proved that Dura-Wood sustains lift truck axle loads far heavier than normal 60-70,000 pound maximums.

But strength is just part of the story. If you want more reasons why the top Class I railroads are pushing our production to new highs, just write.

Bruce Dura-Wood
LAMINATED EDGE-GRAIN
FREIGHT CAR FLOORING

A PRODUCT OF E. L. BRUCE CO., MEMPHIS, TENN.
World's largest maker of hardwood flooring
Circle 23 on reader service card

W. Bruce Robertson
Motorola

Arthur A. Frank, Jr.
Stanray

Supply Trade

W. Bruce Robertson has been named to the newly established position of public relations manager, **Communications Division, Motorola Inc.**, Chicago.

Arthur A. Frank Jr., vice president, **Standard Railway Equipment Division, Stanray Corp.**, Chicago, has been promoted to general manager of that division. He succeeds **H. L. Kent**, who was president and general manager of the division until his recent election as a vice president of the corporation (RA, May 9, p. 37).

William E. Huntenburg appointed field engineer, Primary Battery Division, **Thomas A. Edison Industries, McGraw-Edison Co.**, at Bloomfield, N. J. Mr. Huntenburg was formerly with the sales department, Topping Brothers, New York, prior to which he was assistant purchasing agent, **Lehigh Valley**.

H. Roy Gordon has been elected vice president and regional manager, **L. B. Foster Co.**, San Francisco, Calif. **Felix Baker**, formerly in the San Francisco regional office, will head newly opened Seattle district office.

Bruce G. Goodman, district manager, Oakland, Calif., sales office, Industrial Battery Division, **Gould-National Batteries**, has been promoted to regional manager there, Northwest Region, succeeding **Cyrus H. Hart**, appointed manager of special accounts for that region.

James D. Williams has been named San Francisco region manager, gas products sales, **Linde Division of Union Carbide Corp.**

Anthony G. Sorci has been appointed manager—Asia and Africa sales, and **Robert F. Vunk** has been named manager—Europe, Australasia and Western Hemisphere sales, Land Transportation Sales Unit, IGE Export Division, **General Electric Co.**, New York.

Frank C. Leensvaart has been appointed market manager, transportation products, **Pennsalt Chemicals Corp.**, succeeding **Horace McIntyre**, named supervisor, metal processing field services, Philadelphia.

A. Jerry Schieler, general sales manager, **Scullin Steel Co.**, St. Louis, Mo., has been appointed vice president—sales. **Harry L. Simmons**, vice president—industrial relations and personnel, has been appointed senior vice president—operations. Mr. Simmons will continue in charge of industrial relations and personnel.

Amercon Corp. has acquired a controlling interest in **Malaker Corp.**, High Bridge, N.J. Malaker is one of the leading development companies in the field of cryogenic equipment and instrumentation.

W. J. Burrows
Vapor

James H. Cowan
Kerite

W. J. Burrows has been appointed general sales manager, Railroad and Transit Division, **Vapor Corp.**, Chicago.

James H. Cowan has been elected a vice president, **Kerite Co.**, New York. Mr. Cowan was formerly national manager, power-industrial sales.

W. Irving Osborne, Jr., president of **Pullman Incorporated** since 1961, has been elected to the additional post of chairman of the board. He succeeds **Champ Carry**, who will retire June 30 after 47 years of service with Pullman and its predecessors.

John H. Naftzger has been appointed coordinator of transportation products for western states, **Pennsalt Chemicals Corp.**, with headquarters at Philadelphia. Mr. Naftzger's primary responsibilities will be to expand Pennsalt's western market for aircraft and railroad maintenance chemicals.

Elmer C. Stringham, staff development engineer, **Barco Division, Aeroquip Corp.**, Barrington, Ill., has been advanced to products manager, railroad products.

N. L. Harms has been appointed vice president of **Symington Wayne Corp.** Mr. Harms will continue to direct the firm's international operations as president of Symington Wayne International Co. Ltd., in addition to his new corporate responsibilities.

R. A. Harwick, eastern railway sales engineer, **SKF Industries**, Philadelphia, has been appointed manager of railway sales, succeeding **E. K. Lofton**, who has been named to the newly created position of product manager. Mr. Lofton will be responsible for products of SKF's facilities at Asheville, N.C., and Hornell, N.Y. Mr. Harwick will coordinate the affiliated railway sales activities of SKF and American Brake Shoe Co.

Evans Products Co.'s Transportation Equipment Group regional office in St. Louis, Mo., moved to 451 Paul Brown Building, 818 Olive Street on May 1. **W. B. Gilkey**, regional manager, St. Louis Office, and **Philip A. Laret**, manager Southwestern Region, have headquarters at the new address.

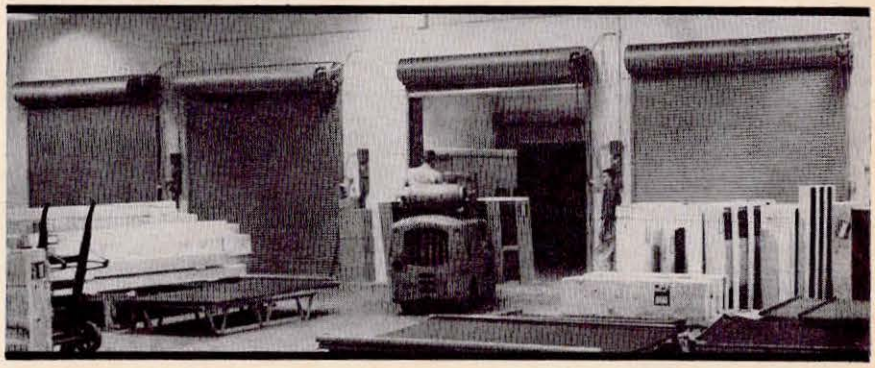
John Helm has been appointed manager of sales, Transportation Division, **Binkley Co.**, Warrenton, Mo., succeeding **Jay Luetkemeyer**, named supervisor of scheduling.

OBITUARY

Overton Wray Turner, 64, rate analyst, **Growers & Shippers League** of Florida, died May 14 at his home in Orlando, Fla. Mr. Turner had previously served the Atlantic Coast Line and Southern Freight Assn.

Space Saving... Extra Durability... More Efficient To Operate...

Essential Qualities For Maximum Door Economy for Every Railroad Use—



KINNEAR
ROLLING DOORS

Whether it's a freight shed, repair shop, terminal building or other type of railroad building—or even certain types of rolling stock—Kinnear Rolling Doors provide the most durable, economical doors that can be installed. And this is not an idle claim! Records show that Kinnear Doors installed on railroad buildings before the turn of the century are still rendering efficient daily service.

Kinnear Doors are engineered and built especially for hard, rugged use. Providing ALL-WEATHER protection, they're designed to withstand a minimum wind velocity of 88 m.p.h. (higher when specified). To resist the elements for more years, the steel interlocking slat curtain is extra heavily galvanized. Counterbalance has reserve capacity and is easily adjusted. For even greater "life extension" every Kinnear Door is REGISTERED, with its complete details permanently kept in fireproof vaults. This means that **replacement parts are always available** in case of accidental door damage or other mishap. And with Kinnear's nation-wide service organization of trained and experienced door people, Kinnear Doors are easy to maintain . . . and capable of rendering maximum service for the life of the building.

Also, with the Kinnear Power Operator especially designed for rolling door application, coupled with modern **electronic** controls, Kinnear Rolling Doors can be **automated** as much as you want. Let us consult with you on your current door needs. Write or call.

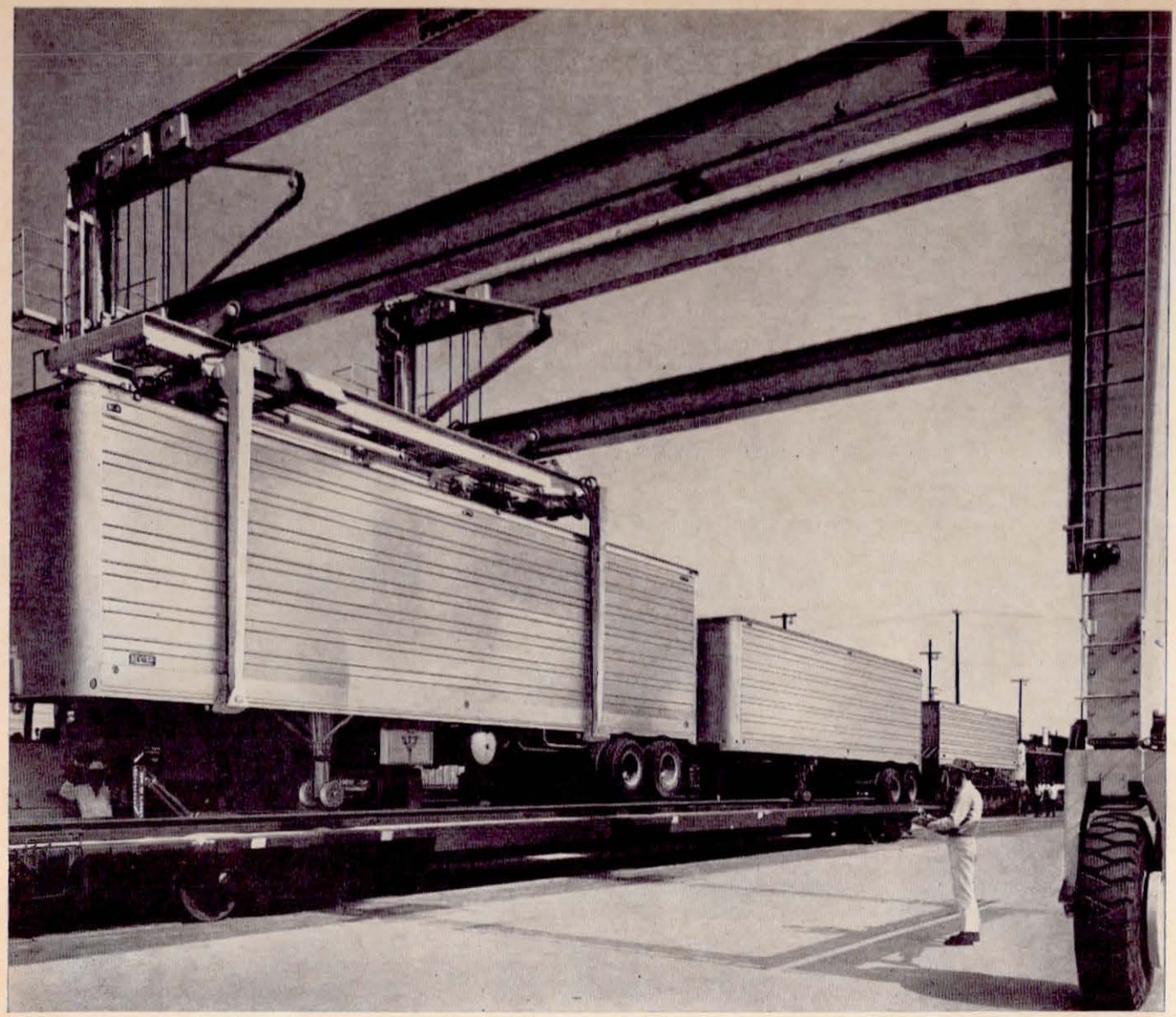
Also manufacturers of Door Operators, Rolling Fire Doors, Rolling Grilles, Rolling Counter Shutters and RoL-TOP Overhead Type Doors.

The KINNEAR Manufacturing Co. and Subsidiaries
2023-40 Fields Ave., Columbus, Ohio 43216
FACTORIES: Columbus, Ohio 43216
San Francisco, Calif. 94124
Toronto, Ont., Canada

KINNEAR® ROLLING DOORS
Saving Ways in Doorways Since 1895

Offices & Representatives in All Principal Cities — listed in Yellow Pages under "Doors." Also see Sweet's!

Circle 26 on reader service card



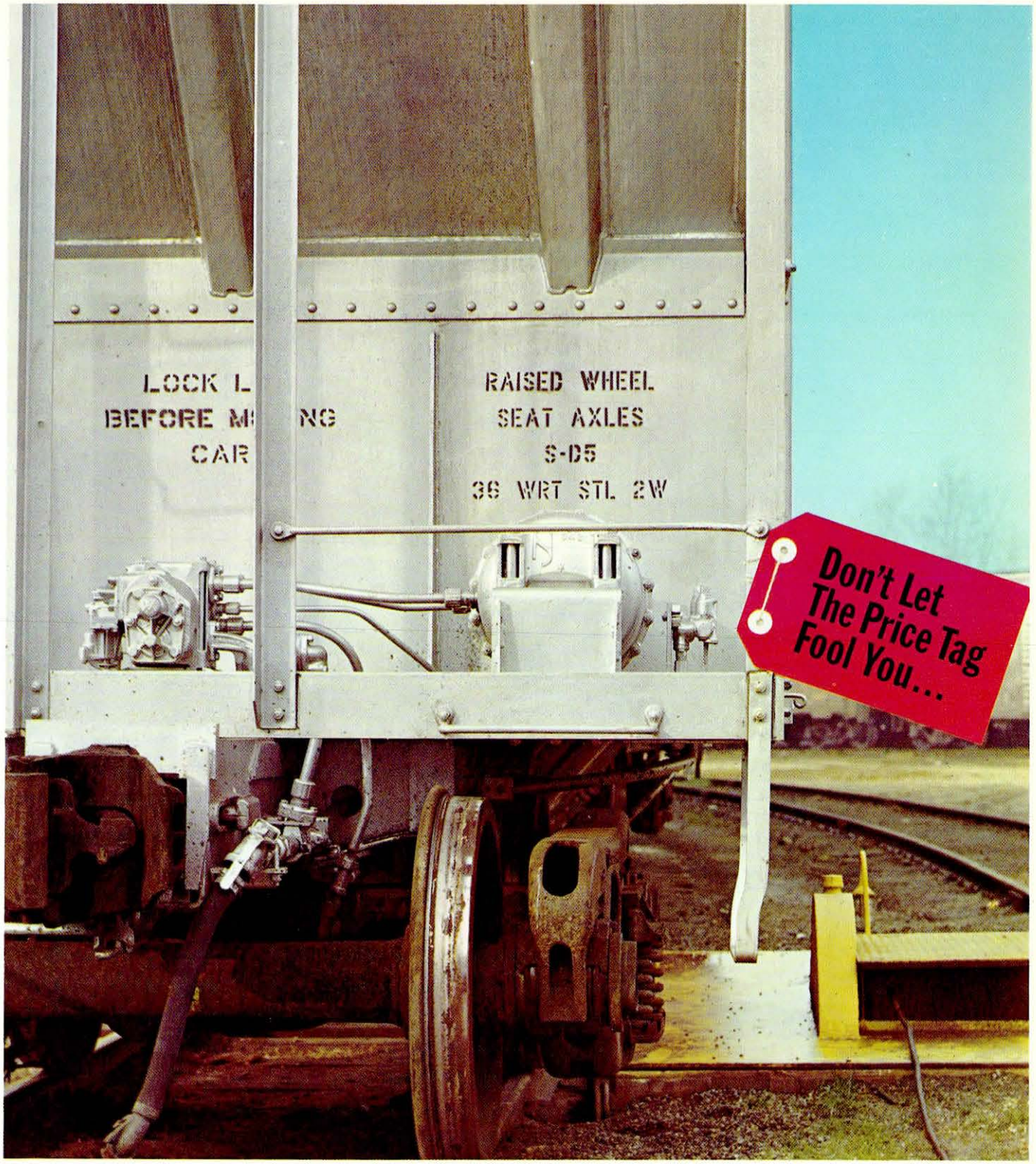
First in Piggybacks, too!

UTILITY...America's first trailer builder pioneered in the building of America's first Piggybacks in 1955. Forty years of knowhow went into the design and construction of this new, specialized trailer to combine the short-distance flexibility of trucking with the long-distance speed and economy of the railroads. America's railroads know that Utility's superior craftsmanship, experience and knowledge mean Piggybacks with maximum payload capacity protected by extra strength where it's needed. Exclusive features include: Extra-deep side and front rails. Six-inch deep cross members. Superior strength in kingpin assembly to withstand and absorb shock loads. Wrap-around internal and external skin of heavy-gauge aluminum nose protection. So...whatever your Piggyback needs may be...you're sure to be first with...

UTILITY
TRAILER MFG. CO.

RAILROADS SERVED: SANTA FE, SOUTHERN PACIFIC, NORTHERN PACIFIC, MILWAUKEE, BOSTON & MAIN, SOO LINE, REALCO, COTTON BELT, DENVER & RIO GRANDE, UNION PACIFIC, ALASKAN and BURLINGTON.

Circle 31 on reader service card



aluminum cars are
the least expensive freight cars
you can own
(or lease)

Experience–and cost accounting –prove aluminum cars will actually cost less and earn more over their lifetime than steel cars.

You do pay a premium, initially, for an aluminum freight car. It averages about $4,000 over the price of a steel car. (A recent bid showed a spread of only $2,300.) But when you consider the total cost of the cars and their revenue-producing capacity over their service lifetime, there's no question that the aluminum car has a major advantage.

Basic, of course, is the lower tare weight and higher capacity of the aluminum car. A 4,750 cu. ft. aluminum covered hopper can carry 13,500 lbs. more payload than a typical steel car of comparable size. In cars ranging from 2,600 to 2,900 cu. ft., aluminum gives you a 16,000 lb. payload advantage over steel.

Extra Payload Pays Off

With this sort of payload advantage, it doesn't take many trips per month for an aluminum car to produce a sizable extra revenue. The following table shows how much added revenue an aluminum car can produce on two-turn-arounds per month, with various per-ton rates:

Added Revenue Earned By Aluminum Covered Hopper Car Over Comparable Steel Car—Based on 6¾ Ton Bonus Payload

Rates Per Ton	Revenue Additional Per Trip	Revenue Additional Per Month	Revenue Additional Per Year	Revenue Additional Per 15 Years
$ 1.00	$ 6.75	$ 13.50	$ 162.00	$ 2,430.00
2.00	13.50	27.00	324.00	4,860.00
3.00	20.25	40.50	486.00	7,290.00
4.00	27.00	54.00	648.00	9,720.00
5.00	33.75	67.50	810.00	12,150.00
6.00	40.50	81.00	972.00	14,580.00
7.00	47.25	94.50	1,134.00	17,010.00
8.00	54.00	108.00	1,296.00	19,440.00
9.00	60.75	121.50	1,458.00	21,870.00
10.00	67.50	135.00	1,620.00	24,300.00

Thus, at the end of 15 years, with two-turn per month service and a conservative grain rate of $4.00 per ton, the aluminum car will earn $9,720 more than the steel car.

Lower Operating Costs

Extra earning capacity, however, is just one of the long-term financial benefits that aluminum cars give their owners. Substantially lower operating costs is another.

Because it is 13,500 lbs. heavier on the empty return trip, a steel car travels more ton-miles than an aluminum car in the same service. Ton-mileage, of course, is directly related to operating costs. With less ton-mileage, an aluminum car will require less train fuel, less locomotive maintenance and lubrication, less maintenance of way.

Maintenance Slashed

An aluminum car itself requires much less maintenance than a steel car. Aluminum won't rust, so the car needs no protective painting. Aluminum also resists corrosion and protects cargoes from contamination, so expensive interior coatings are not required. Interior coatings or linings for steel cars cost about $700 per application, and must be replaced several times during the life of the car.

Reynolds economists have estimated that an aluminum open hopper or gondola car in unit train coal service would save over $4,000 in maintenance costs in a 20 year period. This is because the average steel car's side sheets, slope sheets, and crossridge sheets must be replaced at least once in 20 years of coal service; experience indicates this is not necessary with aluminum coal cars.

Extra Dividend in Scrap

There is one more major financial factor to be considered with aluminum cars: scrap value. At the end of its service life, a typical aluminum-body car will yield about 15,000 lbs. of aluminum scrap. (The aluminum car is really an aluminum-body car, with 15,000 lbs. or 30% of its tare weight being aluminum.) Conservatively, an aluminum car would be worth $2,200 more in scrap value than a similar steel car.

Total Cost Analysis

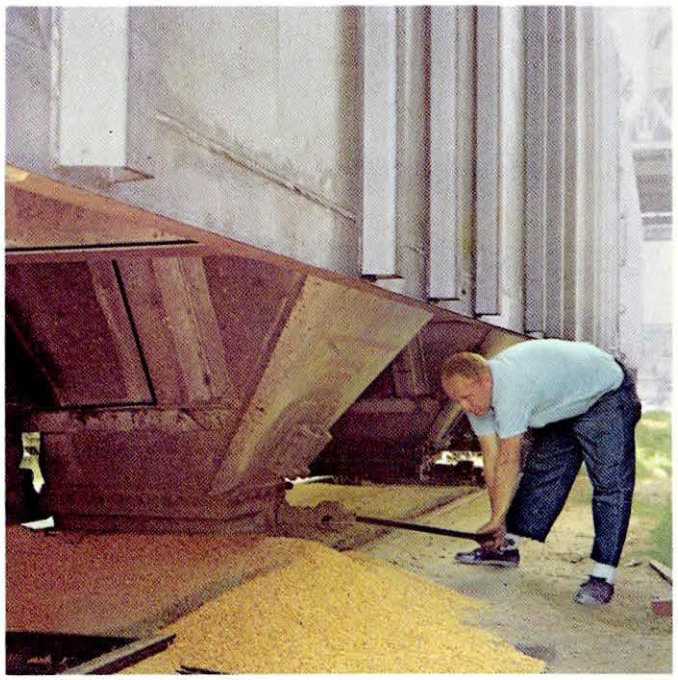
One railroad executive recently analyzed all these factors as they applied to 150 aluminum covered hoppers for general service. He found that the projected 15 year savings in operating costs, maintenance, and scrap value would completely cover the premium in first cost of the cars, and yield an extra savings of $97 per year per car. This study did not take the additional payload and revenue capacity of the aluminum cars into consideration.

Aluminum cars command higher per diem rates for off-line service, so their extra earning power is not limited to "captive" service.

Added Per Diem Revenue with Aluminum Cars

Year	Aluminum Car Value For Per Diem Per Unit (1)	Per Diem Rate	Steel Car Value For Per Diem Per Unit (1)	Per Diem Rate	Differential Per Diem Rate	Added Revenue For Aluminum Cars Per Unit Per Year (2)
1	$19,000	$6.15	$15,000	$6.15	—	—
2	18,430	6.15	14,550	4.50	$1.65	$ 297.00
3	17,860	6.15	14,100	4.50	1.65	297.00
4	17,290	6.15	13,650	4.50	1.65	297.00
5	16,720	6.15	13,200	4.50	1.65	297.00
6	16,150	6.15	12,750	4.50	1.65	297.00
7	15,580	6.15	12,300	4.50	1.65	297.00
8	15,010	6.15	11,850	4.50	1.65	297.00
9	14,440	4.50	11,400	4.50	—	—
10	13,870	4.50	10,950	4.50	—	—
11	13,300	4.50	10,500	4.50	—	—
12	12,730	4.50	10,050	4.50	—	—
13	12,160	4.50	9,600	3.58	0.92	165.60
14	11,590	4.50	9,150	3.58	0.92	165.60
15	11,020	4.50	8,700	3.58	0.92	165.60
Total						$2,575.80
Averages		$5.380		$4.426	$0.954	$ 717.72

(1) Straight line depreciation at 3% per year
(2) Assumed 180 off-line days per year



When a lease arrangement is preferred to outright purchase, Reynolds specialists work with the railroads and leasing companies to get interest rates comparable to—if not better than—those for steel cars.

If you're planning to invest in new freight cars, look at the total cost, the total earning power, of the cars. You'll see why more aluminum cars are going into service every year . . . more of them made with Reynolds Aluminum than any other.

The facts on the previous pages show how aluminum covered hopper cars reduce costs and boost revenue for their owners. Other types of aluminum cars offer these benefits, too: Open hoppers, gondolas, and tank cars all cost less to operate and maintain when they're made of aluminum—and have extra payload capacity, higher scrap value, as well.

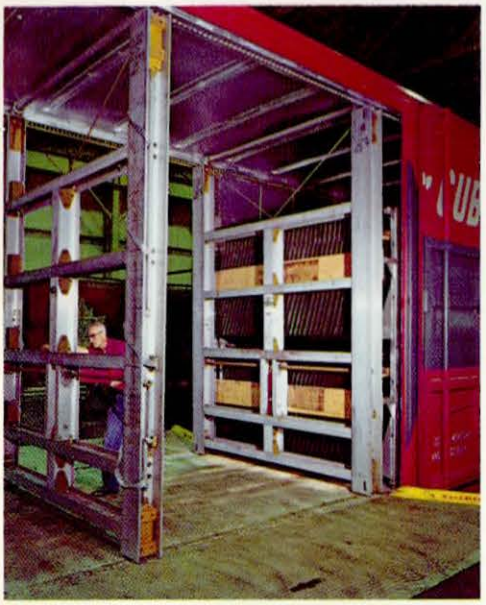
The service records of these cars show that their day-to-day economies add up to long-term financial benefits.

Aluminum's light weight, strength, and corrosion resistance pay important dividends in car components and special freight equipment as well as in rolling stock—as proven daily by aluminum car doors, crossmembers, and bulkheads.

Let a Reynolds railroad specialist show you the long-term advantages of aluminum cars and equipment. Contact your local Reynolds office for details or write Reynolds Metals Company, P.O. Box 2346-XY, Richmond, Virginia 23218.

REYNOLDS
where new ideas take shape in
ALUMINUM

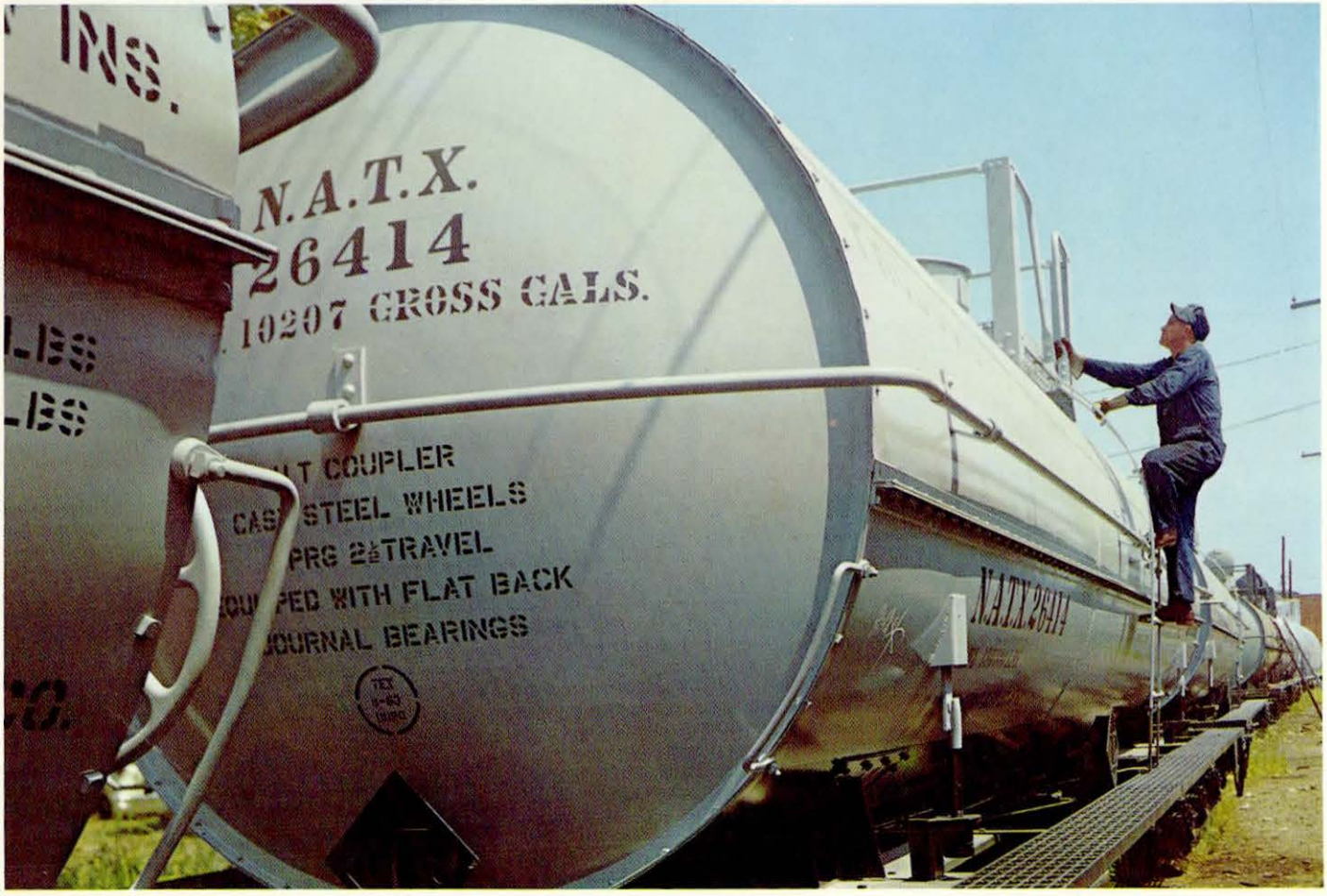
Watch **"The Red Skelton Hour"**, Tuesdays, CBS-TV



Strong, lightweight bulkheads of Reynolds Aluminum guard bulky freight.

Gondola cars made with Reynolds Aluminum, in daily unit train coal service.

Tough Reynolds Aluminum helps tank cars serve longer with corrosive cargoes.



Here's why you'll see WABCOPAC® Brake Assemblies on 30,256 new cars

The WABCOPAC Brake Assembly lowers operating costs—proven by over eight years of service experience and millions of revenue miles in interchange service. It increases braking efficiency 70%, extends wheel life 100% and shoe life 200%, and eliminates rigging maintenance.

Over 70% of the Class I railroads and most of the private car lines own and operate cars equipped with WABCOPAC Brake Assembly, and 30,256 cars were built with WABCOPAC Brake Assembly during 1965.

Tested and improved by design innovations, WABCOPAC Brake Assembly consists of two truck-mounted units joined by push rods that pass through openings in the truck bolster. Except for a simple hand brake connection, installation eliminates conventional levers, pull rods, fulcrum pins or brackets, saving up to 1,750 pounds of dead weight per car.

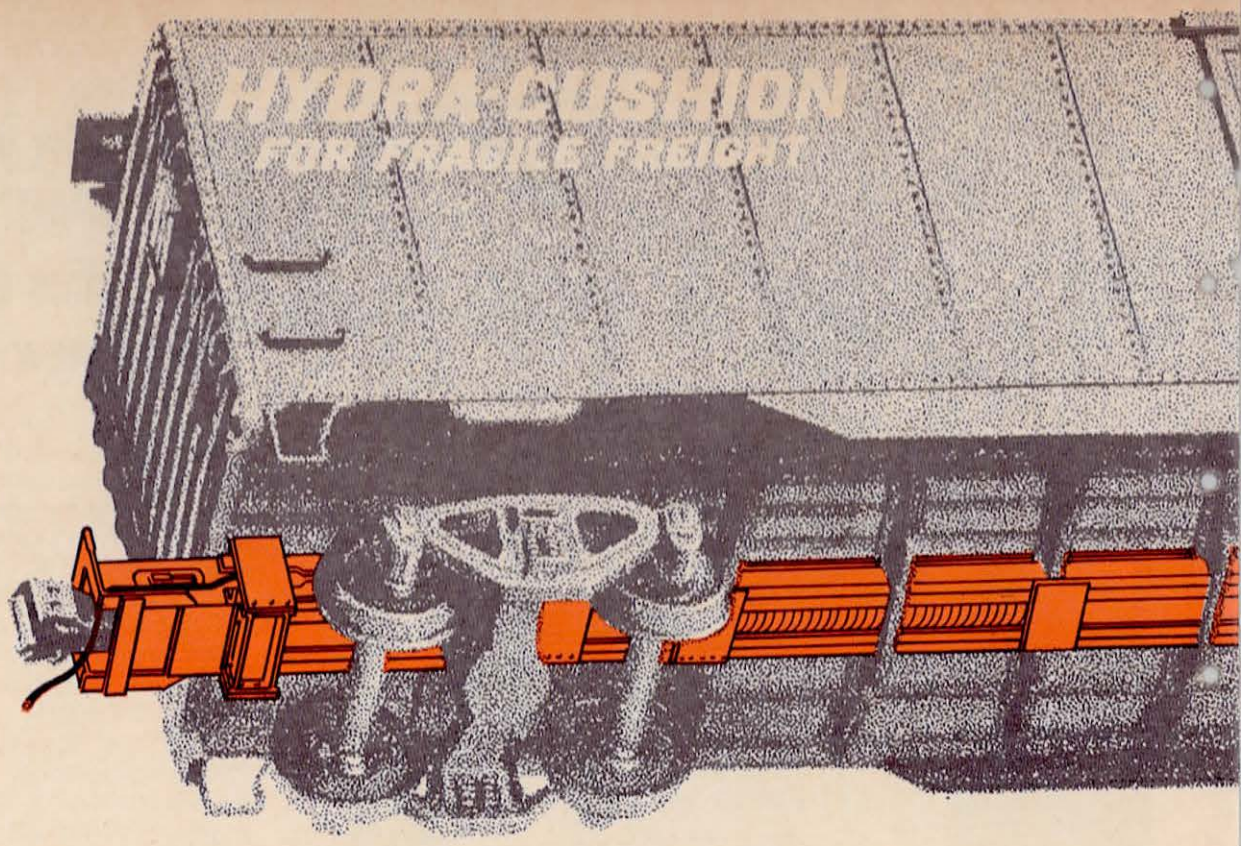
Because of the direct action between the cylinders and the brake shoes, the WABCOPAC Brake Assembly shoe force is uniform on all wheels. This gives shoes and wheels even wear and longer life. And, of course, the WABCOPAC Brake Assembly takes advantage of the high friction characteristics of COBRA* Brake Shoes so cars ride and stop smoothly. Car designers like the WABCOPAC Brake Assembly, because it allows them to lower car profiles for greater overhead clearance and extra capacity. For more information on the WABCOPAC Brake Assembly, contact your local Westinghouse Air Brake Division Representative.

*Registered trademark,
Railroad Friction Products Corporation

WABCO

WESTINGHOUSE AIR BRAKE DIVISION
WILMERDING, PA. / Westinghouse Air Brake Company

Circle 27 on reader service card



21 reasons why you should

(1) **Extra margin of cushioning safety**—Unlike other systems, the Hydra-Cushion Underframe does not rely on hydraulics alone, but on a *combination* of hydraulic and mechanical cushioning action. The mechanical components alone can cushion a fully loaded 100-ton car against impacts up to six miles per hour! The combined hydraulic/mechanical system absorbs the full range of impacts normally encountered in modern freight car handling. This is added insurance against lading and car damage.

(2) **Unique conversion feature**—When you convert 100-ton cars with 70-ton trucks to 100-ton cars with 100-ton trucks, the only conversion necessary in your Hydra-Cushion Underframes is simple replacement of a metering pin costing less than 10 dollars! The Hydra-Cushion Underframe is the only cushioning device offering this unique feature.

(3) **Long years of proven performance**—Hydra-Cushion equipped cars were introduced in service in 1954 and have since been proven over many millions of car miles.

(4) **True sliding center sill**—Provides full 20" travel, assuring performance that only a true sliding center sill can provide.

(5) **Low hydraulic pressure**—The Hydra-Cushion Underframe is a low-pressure system, minimizing maintenance problems.

(6) **Minimum hydraulic fluid**—Only seven quarts of fluid is needed for the Hydra-Cushion low pressure hydraulic system. Checking of fluid levels is not required.

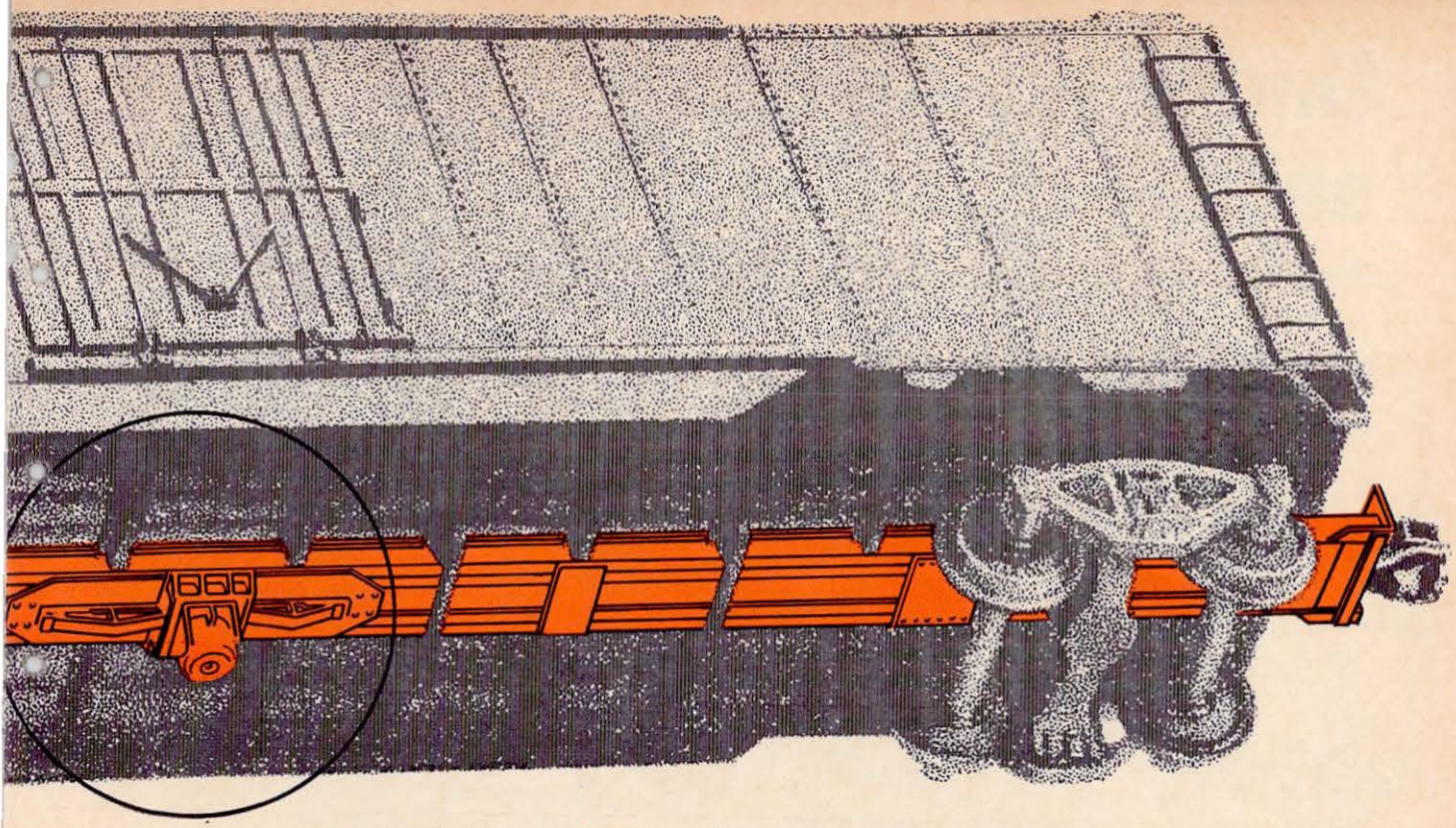
(7) **Most powerful return spring**—Cushioning capacity of the Hydra-Cushion return spring is 45,000 ft. lbs., an exclusive Hydra-Cushion feature. This powerful spring has more than twice the capacity of standard draft gears.

(8) **Less wear on sill**—The stiffer the return spring, the less wear on sill contacting surfaces. The return spring assembly of the Hydra-Cushion Underframe is substantially higher in capacity than those used in any other modern hydraulically cushioned device of the sliding sill type.

(9) **No sill lubrication required**—Some cushioner manufacturers recommend sill lubrication for optimum functioning of their equipment. The Hydra-Cushion Underframe does not need it.

HC®

HYDRA-CUSHION®



This combination makes the big difference in car cushioning. The patented combination of hydraulic unit and friction plates in the Hydra-Cushion system provides an extra margin of cushioning safety. No other cushioner has it. This is one of many reasons why the Hydra-Cushion Underframe is America's leading car cushioning device.

specify Hydra-Cushion® Underframes

(10) **No oil leakage**—The Hydra-Cushion design employs a vertical low-pressure hydraulic cylinder. Upright position of the oil reservoir eliminates possibility of oil dripping which is sometimes encountered with horizontal units.

(11) **Sill movement controlled**—Oversolid stops control maximum draft sill movement to 20″ in either direction.

(12) **Permits controlled swing of coupler**—The Hydra-Cushion buff unit produces a minimum of coupler slack. It has a cushioning capacity of 22,000 ft. lbs.

(13) **Cast steel center support**—Rugged cast steel center supports are designed and engineered to last the life of the car.

(14) **Positive sill return**—Design of the Hydra-Cushion return spring assembly assures positive sill return after impact. Sill does not stick off-center.

(15) **Reduced sill oscillation**—Design of the Hydra-Cushion unit minimizes fore-and-aft sill oscillation in train operation.

(16) **For any freight car**—The Hydra-Cushion Underframe can be installed in both new and existing freight cars economically.

(17) **Proven dust boot**—Dust boot is rugged and tough, and is designed for long life.

(18) **Reduces car weight**—Use of Hydra-Cushion Underframes makes possible a reduction in weight and cost of interior load restraining devices.

(19) **Long life, minimum wear**—The Hydra-Cushion Underframe's bronze stationary friction plates and high strength steel moveable friction plates are specially designed for long service. They have been proven in use in millions of car miles over many years.

(20) **Minimum seal wear**—Piston travel is shortest of any hydraulically operated through-sill device. Short piston travel reduces possibility of seal wear.

(21) **Service follow-through**—The Engineering Design and Consultation services we provide to railroads interested in car cushioning are a Hydra-Cushion exclusive. After a sale, our field representatives work closely with your installation people to assure that all components are installed properly and operate efficiently.

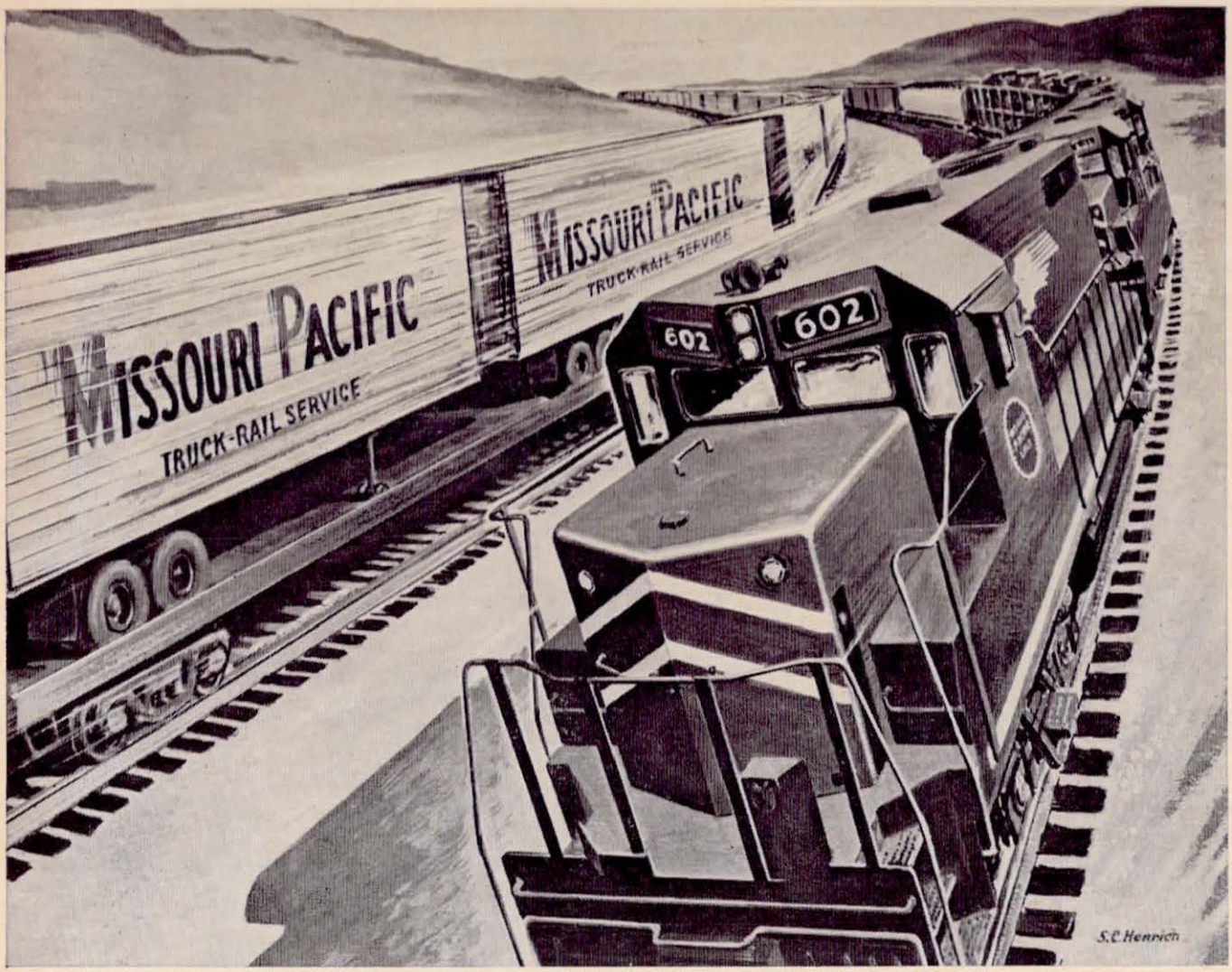
UNDERFRAMES

HYDRA-CUSHION INC.
332 So. Michigan Ave. Chicago, Illinois 60604
13101 Eckles Rd. Plymouth, Mich. 48170
Canadian Representative: International Equipment Co. Ltd., Montreal

Circle 56 on reader service card

Under the gun on a shipment to Texas?

We'll cover you...with the fastest run in the Southwest!



The Lone Star State is one of our biggest bailiwicks. Every day, MoPac freights shoot out of St. Louis, Memphis, Kansas City and New Orleans to give shippers more Texas coverage than any other rail carrier. Nothing out-draws MoPac on deadline deliveries to Gulf Coast destinations. And when *your* reputation hangs on a quick delivery deep in the heart of Texas or out El Paso way, don't forget . . . *ours* does too.

When you're shipping anywhere Southwest, simply call our agent and repeat these four little words: "*MoPac moves it faster.*" He'll get the message!

From St. Louis and Memphis: 2nd morning delivery to Dallas, Fort Worth, El Paso, Houston and San Antonio; 3rd morning delivery to Brownsville, Laredo.

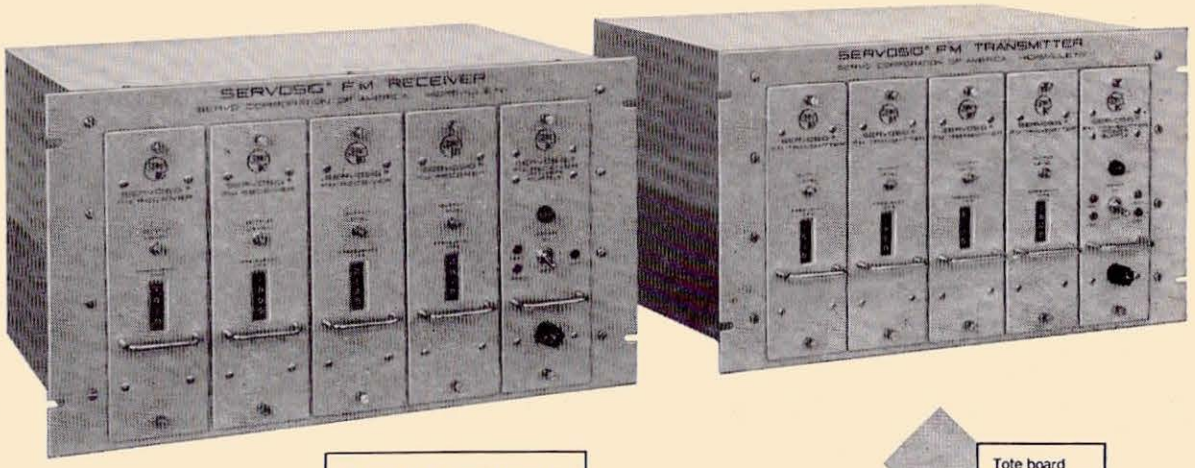
From Kansas City: 2nd morning delivery to Dallas, Fort Worth;3rd morning delivery to El Paso, Houston, San Antonio, Laredo.

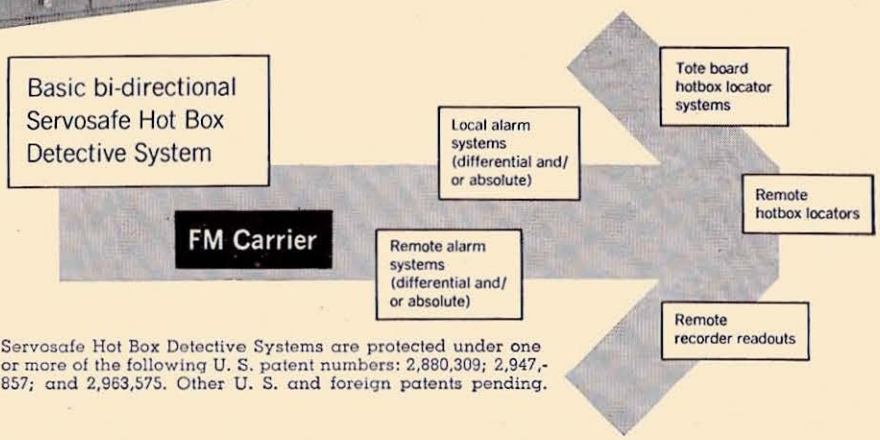
From New Orleans: 2nd morning delivery to Houston, Dallas, Fort Worth; 3rd morning delivery to El Paso.

MISSOURI PACIFIC
TEXAS & PACIFIC

Circle 37 on reader service card

new FM carrier




Basic bi-directional Servosafe Hot Box Detective System
FM Carrier
Local alarm systems (differential and/or absolute)
Remote alarm systems (differential and/or absolute)
Tote board hotbox locator systems
Remote hotbox locators
Remote recorder readouts

Servosafe Hot Box Detective Systems are protected under one or more of the following U. S. patent numbers: 2,880,309; 2,947,857; and 2,963,575. Other U. S. and foreign patents pending.

Joins SERVOSAFE System

Interfacing problems? A thing of the past with our new FM Carrier System. It's specially designed for high fidelity data transfer from the Servosafe® Hot Box Detective to remote recorders, alarms and axle locators.

The system operates over a narrow bandwidth (only 170 cps standard telegraph spacing), and is used to transmit both digital and analog data. Pulse duration modulation with frequency shift produces accurate signal transmission. Virtually any type of transmission link may be used, including leased voice circuits. Servo's low-noise FM Carrier provides unusual flexibility and long trouble-free service, even under adverse weather conditions.

Our new FM Carrier is adaptable to your present as well as future hotbox detection requirements. We will be glad to assume total system responsibility to assure maximum accuracy and reliability from your Servosafe installation.

Write or phone for our new brochure on the Servosig® FM Carrier System. Railroad Products Division, Department RA-52, 111 New South Road, Hicksville, L. I., New York 11802. Phone: (516) 938-9700.

SCA servo Corporation of America

Circle 28 on reader service card

Railway Age Service Page

REVENUES AND EXPENSES OF RAILWAYS

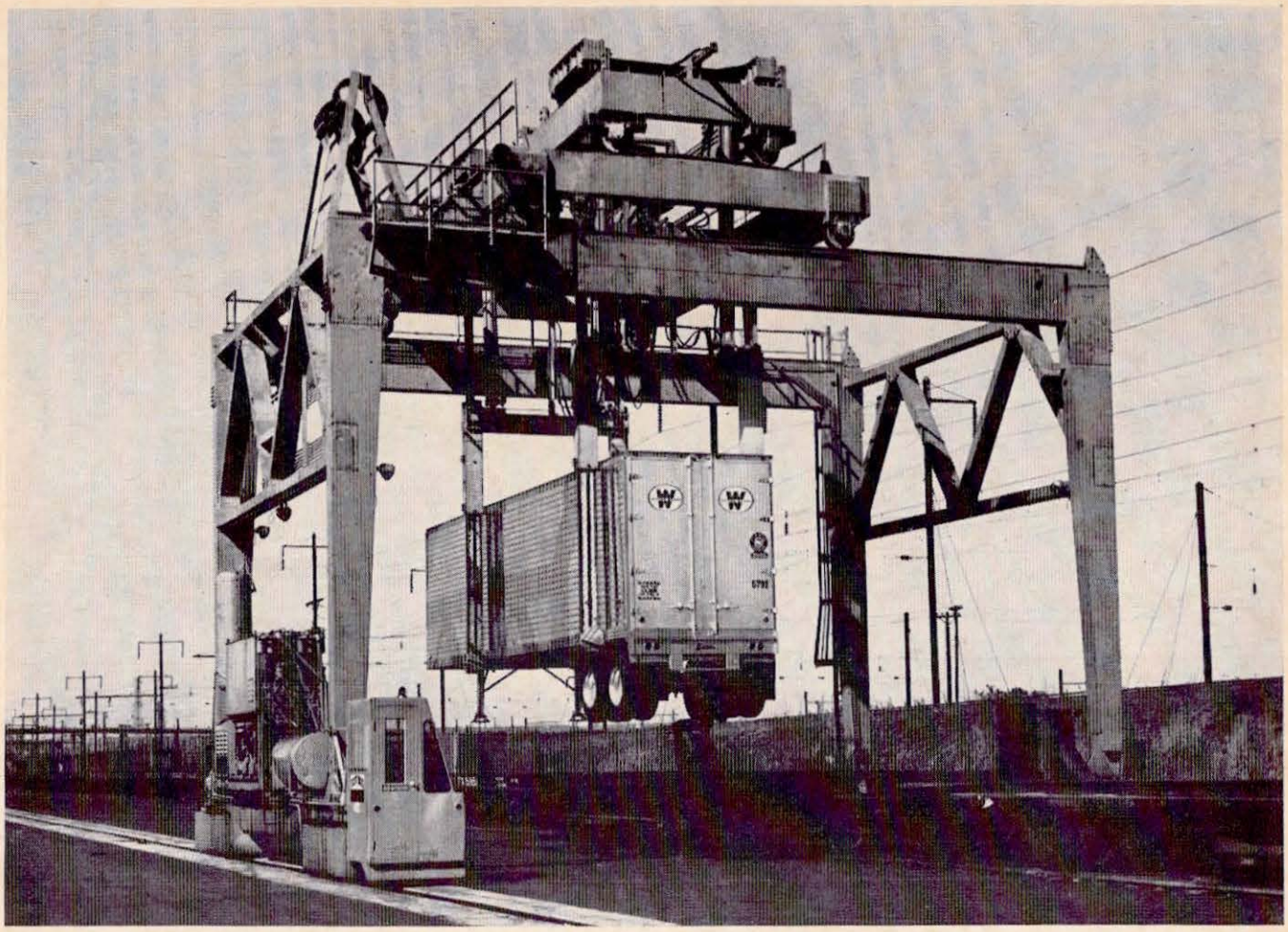
(Dollar figures are stated in thousands: i.e., with last three digits omitted)

First Quarter Figures of Calendar Year 1966

Name of Road	Average mileage operated during period	Operating Revenues				Operating Expenses										Operating ratio		Net from railway operation	Railway tax accruals	Net Railway operating income	
						Maint. Way and Structures				Maint. Equipment											
		Freight	Pass.	Total (inc. misc.) 1966	1965	Total 1966	Total 1965	Deprec. and Retirements	Total 1966	Total 1965	Deprec. and Retirements	Traffic	Transportation	Total 1966	Total 1965	1966	1965			1966	1965
Akron, Canton & Youngstown	3 mos. 171	1,662	....	1,704	1,583	219	177	19	318	277	82	125	597	1,364	1,242	80.0	78.4	340	173	180	185
Ann Arbor	3 mos. 293	2,410	....	2,436	2,137	226	24	24	448	379	144	55	1,237	2,027	1,864	83.2	87.2	409	170	—19	—98
Atchison, Topeka & Santa Fe	3 mos. 12,927	140,974	7,170	163,116	145,519	19,762	19,584	2,226	35,129	31,227	10,488	4,685	60,408	127,349	121,173	78.1	83.3	35,768	16,736	17,117	11,316
Atlantic Coast Line	3 mos. 5,719	46,857	4,327	54,708	51,741	6,315	5,977	585	9,680	8,808	3,144	2,056	20,570	41,563	39,486	76.1	76.3	13,055	4,050	5,553	4,874
Baltimore & Ohio	3 mos. 5,780	89,691	1,789	97,683	92,855	10,339	9,384	1,246	16,167	15,385	2,618	2,605	39,444	74,235	71,864	76.0	77.4	23,448	6,774	5,677	4,878
Bangor & Aroostook	3 mos. 544	4,035	53	4,412	4,797	927	1,069	66	1,030	1,052	415	84	1,219	3,505	3,791	84.6	79.0	637	256	670	709
Bessemer & Lake Erie	3 mos. 201	5,442	....	5,599	5,671	959	618	338	1,204	2,008	84	150	1,555	4,367	4,543	78.0	80.1	1,233	1,091	972	898
Boston & Maine	3 mos. 1,529	12,943	1,089	15,358	15,622	2,111	1,847	445	2,196	2,135	670	329	7,061	12,529	12,366	81.6	79.2	2,830	1,108	300	702
CPR Lines in Maine	3 mos. 234	2,037	58	2,130	2,502	275	278	59	436	403	54	45	610	1,480	1,528	69.5	61.1	650	89	197	457
Central of Georgia	3 mos. 1,743	11,254	338	12,135	11,460	2,689	2,516	144	2,432	2,399	653	449	5,072	11,430	10,441	94.2	91.1	709	198	—372	353
Central RR Co. of New Jersey	3 mos. 573	9,791	1,179	13,051	12,350	1,540	1,375	292	2,624	2,122	463	337	6,925	12,162	11,163	93.2	90.4	890	1,298	—1,653	—1,302
Central Vermont	3 mos. 382	1,757	108	2,000	2,114	475	475	54	281	300	24	54	970	1,857	1,930	92.8	91.3	144	178	—345	—293
Chesapeake & Ohio	3 mos. 5,128	88,808	1,157	92,921	88,637	10,100	10,100	1,474	18,108	17,868	6,298	2,467	37,597	74,158	73,573	79.8	83.0	18,763	10,457	9,541	8,732
Chicago & Eastern Illinois	3 mos. 862	8,838	240	9,769	9,289	1,152	1,037	98	1,715	1,447	541	381	3,743	7,790	7,401	79.7	79.7	1,979	438	621	417
Chicago & Illinois Midland	3 mos. 121	1,974	....	2,012	2,002	100	116	21	244	300	36	12	435	959	1,116	47.7	55.7	1,053	562	378	277
Chicago & North Western	3 mos. 10,222	47,499	4,440	54,442	52,637	7,930	7,815	1,337	9,692	9,168	3,150	1,970	22,493	45,283	44,000	83.2	83.6	9,159	4,172	1,399	1,014
Chicago, Burlington & Quincy	3 mos. 8,559	54,983	4,211	65,519	63,631	7,510	7,600	1,249	12,513	12,840	4,280	2,103	27,512	53,302	53,389	81.4	83.9	12,218	6,024	5,527	3,983
Chicago Great Western	3 mos. 1,427	7,155	1	7,450	7,558	913	892	139	1,409	1,350	380	360	2,803	5,806	5,854	77.9	77.5	1,644	457	312	287
Chic., Milw., St. Paul & Pacific	3 mos. 10,152	52,490	2,557	60,916	55,252	7,504	6,977	1,316	9,374	9,098	2,883	1,676	25,405	48,169	46,467	79.1	84.1	12,747	3,701	5,325	987
Chicago, Rock Island & Pacific	3 mos. 7,469	49,488	2,514	56,545	47,861	6,643	6,028	813	9,755	9,255	2,195	1,637	23,684	44,917	41,576	79.4	86.9	11,628	4,240	2,405	—1,590
Clinchfield	3 mos. 306	7,115	....	7,150	6,060	668	566	67	1,048	986	418	241	1,826	4,010	3,623	56.1	59.8	3,140	653	2,532	1,845
Colorado & Southern	3 mos. 709	3,269	95	3,802	3,750	467	477	55	767	701	304	86	1,602	3,170	3,201	83.3	85.4	631	229	331	191
Ft. Worth & Denver	3 mos. 1,362	4,955	140	5,709	5,933	756	605	78	831	742	123	198	2,411	4,539	4,204	79.5	85.2	1,170	342	—14	—329
Delaware & Hudson	3 mos. 734	9,880	236	10,315	10,469	1,105	1,081	203	2,150	2,177	553	332	3,663	7,939	8,107	77.0	77.4	2,375	1,276	1,240	1,020
Denver & Rio Grande Western	3 mos. 2,162	20,037	513	21,090	19,652	1,932	1,943	321	3,321	3,234	1,156	795	7,157	14,571	13,982	69.1	71.2	6,519	3,260	3,325	3,013
Detroit & Toledo Shore Line	3 mos. 50	1,781	....	1,892	2,036	159	198	12	259	233	100	68	702	1,241	1,284	65.6	63.1	651	220	199	212
Detroit, Toledo & Ironton	3 mos. 469	6,978	....	7,267	6,908	765	577	129	1,372	1,365	711	205	2,195	4,838	4,454	66.6	64.5	2,429	442	1,332	1,647
Duluth, Missabe & Iron Range	3 mos. 515	1,706	....	1,875	1,217	1,071	903	264	1,288	1,284	538	42	1,636	4,691	4,258	250.2	349.7	—2,816	Cr.1,320	—1,367	—3,266
Duluth, Winnipeg & Pacific	3 mos. 174	2,140	....	2,157	1,913	235	217	16	196	175	3	....	652	1,121	1,080	52.0	56.4	1,036	176	495	382
Elgin, Joliet & Eastern	3 mos. 205	8,852	....	12,621	13,116	1,073	987	97	2,265	2,243	405	141	4,557	9,021	9,491	71.5	72.4	3,599	2,115	1,078	1,124
Erie Lackawanna	3 mos. 2,895	47,583	3,003	55,310	52,876	5,226	5,048	1,209	8,989	9,483	2,451	1,264	25,945	44,109	44,476	79.8	84.1	11,202	4,720	3,209	300
Florida East Coast	3 mos. 572	6,510	4	6,627	6,676	877	935	144	1,292	978	339	160	2,252	5,021	4,651	75.8	69.7	1,606	763	29	533
Georgia Railroad	3 mos. 331	1,963	23	2,251	1,950	309	253	31	419	386	116	147	910	1,917	1,795	85.2	92.0	333	139	154	34
Grand Trunk Western	3 mos. 946	14,384	556	16,199	16,455	1,880	1,964	185	2,378	2,202	202	236	7,261	12,648	12,716	78.1	77.3	3,551	1,386	—409	94
Great Northern	3 mos. 8,273	53,475	1,769	59,054	52,976	7,900	7,607	1,022	10,228	9,997	3,277	1,688	24,025	47,096	45,836	79.8	86.5	11,958	7,119	4,515	1,593
Gulf, Mobile & Ohio	3 mos. 2,745	19,940	480	21,775	20,042	2,734	2,716	247	4,305	3,958	1,123	791	7,419	16,244	15,657	74.6	78.1	5,531	1,975	2,445	1,852
Illinois Central	3 mos. 6,461	60,840	5,328	17,280	67,378	9,791	8,805	1,275	13,744	12,408	3,334	2,022	28,320	57,688	55,181	80.9	81.9	13,592	6,261	4,535	4,331
Illinois Terminal	3 mos. 339	2,235	....	2,540	2,144	260	250	10	427	371	99	123	912	1,886	1,780	74.3	83.0	654	181	213	—127
Kansas City Southern	3 mos. 894	10,906	229	12,436	10,831	1,034	840	166	1,621	1,516	465	337	4,195	7,636	6,881	61.4	63.5	4,800	1,182	1,945	1,662

(Concluded on page 66)

The 50-ton gantry crane by Southern Iron.



a legend in its own time.

The fastest most versatile piggyback loading device in existence. A real breakthrough in gantry crane construction. Developed by Southern Iron & Equipment Company for a major railroad, and now operating in Kearny, N. J., the crane employs no cables or electrical components, resulting in a simplicity that minimizes downtime and maintenance. Other reasons why this is the finest piece of heavy equipment of its type in the railroad industry? Please read on.

- The crane has telescopic grappling arms for smooth, positive load handling.
- Loads can be rotated ±15°, allowing for herringbone parking of piggybacks and out-of-sequence tractor pickup.
- Ability to go up a 3% grade or around a 5° turn.
- Equipped with service-proved, air-operated brake units as used on rapid transit cars.
- Operates on 2 minute 15 second cycle; 50-ton lift capacity, 20% overload protection.
- Independently controlled hoisting cylinders. Allows easy handling of trailers tilted due to ground slope, flat tires, or uneven loads.
- Accessories such as heated cab, floodlights, side mirrors, warning light and horn.

This revolutionary gantry crane is a product of Southern Iron engineering know-how and skilled production techniques. We will be pleased to furnish you more information on this and other cranes, and how we may help solve your cargo handling problems.

Southern Iron & Equipment Company

5522 New Peachtree Road • Chamblee, Georgia

(Shops also in Atlanta) • Phone (404) 457-3176

Circle 24 on reader service card

Railway Age Service Page

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

First Quarter Figures of Calendar Year 1966

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1966	Total (inc. misc.) 1965	Operating Expenses: Maint. Way and Structures: Total 1966	Total 1965	Deprec. and Retirements	Maint. Equipment: Total 1956	Total 1965	Deprec. and Retirements	Traffic	Transportation	Total 1966	Total 1965	Operating ratio 1966	Operating ratio 1965	Net from railway operation	Railway tax accruals	Net Railway operating income 1966	Net Railway operating income 1965
Lake Superior & Ishpeming	3 mos.	103	324	....	412	372	241	226	64	355	298	191	6	268	961	823	233.4	221.0	—549	143	—580	—514
Lehigh Valley	3 mos.	1,101	10,463	....	10,809	11,070	1,272	1,128	268	1,643	1,529	425	399	5,972	9,962	9,483	92.2	85.7	848	919	—1,499	—549
Long Island	3 mos.	327	2,096	16,876	19,569	18,898	2,714	2,832	313	4,091	3,981	446	203	10,557	18,671	18,186	95.4	96.2	899	1,131	—1,135	—1,308
Louisiana & Arkansas	3 mos.	746	6,469	136	7,181	6,790	935	703	57	962	872	373	276	2,378	4,827	4,348	67.2	64.0	2,355	714	1,074	1,052
Louisville & Nashville	3 mos.	5,645	62,441	1,127	67,697	63,312	8,679	7,637	1,097	14,206	13,541	6,012	1,735	26,972	55,178	52,397	81.5	82.8	12,519	4,493	7,111	6,305
Maine Central	3 mos.	931	5,935	....	6,052	5,885	1,145	977	84	1,164	1,099	282	91	2,054	4,823	4,479	79.7	76.1	1,229	360	597	666
M-K-T Lines	3 mos.	3,017	12,448	....	13,001	11,171	2,228	1,592	215	2,795	2,087	591	603	5,274	11,548	9,609	88.8	86.0	1,454	1,136	—1,457	—1,108
Missouri Pacific	3 mos.	9,079	72,463	1,135	79,999	74,517	9,978	9,635	903	13,170	12,775	3,647	1,853	27,733	56,240	54,884	70.3	73.7	23,759	7,455	10,370	9,510
Monon	3 mos.	541	4,731	69	5,090	4,636	572	428	58	764	721	210	243	1,814	3,754	3,590	73.7	77.4	1,336	294	645	463
New York Central	3 mos.	9,787	128,395	11,429	160,609	156,947	16,408	16,433	2,930	27,212	27,674	7,150	3,164	75,526	131,197	132,197	81.7	84.2	29,436	10,291	8,412	3,543
Pittsburgh & Lake Erie	3 mos.	212	6,799	36	7,444	8,696	828	910	147	2,933	3,173	1,024	254	2,974	7,580	7,864	101.8	90.4	—137	2,154	3,275	2,421
New York, New Haven & Hartford	3 mos.	1,576	16,185	9,305	30,633	29,430	4,348	4,810	834	5,940	5,936	1,318	600	15,748	28,991	28,785	94.6	97.8	1,642	2,442	—4,234	—5,736
Norfolk & Western	3 mos.	7,554	141,255	889	148,737	139,405	13,330	13,047	2,354	22,879	21,154	9,007	3,657	52,836	99,087	93,191	66.6	66.8	49,650	17,360	29,191	26,519
Norfolk Southern	3 mos.	593	2,149	....	2,198	2,091	371	390	62	335	344	136	140	767	1,827	1,858	83.1	88.7	372	158	75	—15
Northern Pacific	3 mos.	6,749	41,575	1,137	45,510	43,167	6,512	6,447	1,059	9,598	8,779	3,010	1,387	19,545	40,069	39,204	88.0	90.8	5,441	4,680	2,427	913
Northwestern Pacific	3 mos.	328	2,275	....	2,307	981	814	227	60	159	116	4	18	731	1,798	850	77.9	86.6	509	203	—225	—408
Pennsylvania	3 mos.	9,570	175,671	18,846	219,529	215,272	23,658	20,402	4,269	35,967	33,944	8,854	3,383	101,316	175,877	171,203	80.1	79.5	43,652	14,970	8,899	7,832
Penn-Reading Seashore Lines	3 mos.	341	1,662	53	1,856	1,962	419	399	81	406	391	74	14	1,353	2,290	3,362	213.4	120.4	—434	160	—1,039	—1,073
Piedmont& Northern	3 mos.	150	1,797	....	1,870	1,568	133	127	18	104	102	34	108	361	837	801	44.8	51.0	1,033	504	312	225
Reading	3 mos.	1,277	22,582	1,603	26,195	25,427	3,285	3,455	562	4,593	4,779	1,566	615	10,890	20,978	21,387	80.0	84.1	5,218	1,895	1,830	948
Richmond, Fred. & Potomac	3 mos.	118	4,549	1,126	6,795	6,541	573	532	93	989	961	240	92	2,350	4,479	4,446	65.9	68.0	2,315	1,155	787	741
St. Louis-San Francisco	3 mos.	4,565	33,082	136	34,940	34,022	5,143	4,836	579	5,278	4,909	1,908	1,279	12,744	26,552	25,980	76.0	76.4	8,389	3,483	3,704	3,500
St. Louis Southwestern	3 mos.	1,567	22,725	1	22,945	21,957	1,898	1,690	215	3,283	2,914	1,595	608	7,566	14,114	12,811	61.5	58.4	8,832	3,407	5,513	5,364
Seaboard Air Line	3 mos.	4,123	39,663	3,844	47,468	45,951	6,284	6,031	836	8,561	8,267	2,804	1,766	17,654	36,440	35,166	76.8	76.5	11,028	4,236	4,838	4,887
Soo Line	3 mos.	4,692	20,818	35	21,245	18,691	2,811	2,722	324	2,946	2,754	833	701	8,363	15,742	15,074	74.1	80.6	5,503	2,041	1,897	997
Southern Railway	3 mos.	6,254	71,353	1,585	77,231	73,086	8,419	7,973	1,354	13,072	12,440	4,148	1,816	25,746	53,053	50,657	68.7	69.3	24,178	7,262	9,406	10,483
Alabama Great Southern	3 mos.	327	4,337	91	4,861	4,723	531	633	99	996	896	284	127	1,685	3,600	3,651	74.1	77.3	1,261	378	489	467
Cinn., New Orleans & Tex. Pac.	3 mos.	337	10,017	123	10,734	9,718	1,051	1,116	221	2,439	2,429	880	271	3,261	7,546	7,843	70.3	80.7	3,188	1,135	1,938	1,345
Georgia Southern & Florida	3 mos.	396	2,081	42	2,306	2,301	357	388	34	242	203	30	56	785	1,560	1,540	67.6	66.9	747	98	—33	89
New Orleans & Northeastern	3 mos.	203	2,427	75	2,723	2,817	383	481	79	658	691	282	77	958	2,276	2,411	83.6	85.6	447	226	150	259
Southern Pacific	3 mos.	11,705	179,700	3,824	192,783	183,588	21,824	21,422	2,006	37,698	36,419	12,668	3,302	74,687	146,757	143,564	76.1	78.2	46,020	19,995	17,727	16,095
Spokane, Portland & Seattle	3 mos.	936	8,818	171	9,597	9,033	1,254	1,194	185	1,472	1,387	428	118	3,617	6,879	6,669	71.7	73.8	2,719	1,167	1,106	992
Texas & Pacific	3 mos.	1,765	16,771	277	18,635	17,704	2,714	2,442	271	3,150	2,822	992	645	7,005	14,380	13,977	72.2	79.0	4,255	1,165	1,623	1,210
Toledo, Peoria & Western	3 mos.	239	1,941	....	2,060	1,940	207	185	22	175	200	47	165	693	1,409	1,320	68.4	68.1	651	226	175	193
Union Pacific	3 mos.	9,554	120,719	3,966	134,666	127,944	15,367	14,152	1,673	24,686	25,351	10,413	3,290	46,635	97,252	99,224	72.2	77.6	37,414	18,862	16,990	11,208
Western Maryland	3 mos.	872	12,431	....	13,018	12,417	1,675	1,678	179	3,106	2,964	989	381	4,528	10,310	9,935	79.2	80.0	2,708	1,425	1,915	1,730
Western Pacific	3 mos.	1,177	13,663	431	14,380	13,181	1,853	1,622	267	2,643	2,261	845	791	4,995	11,529	10,911	80.2	82.8	2,852	1,069	1,388	1,121

Circle 12 on reader service card ▼

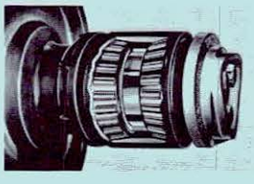
We put seals where they save you money

WE PUT THE FINEST SEALS AVAILABLE ON TIMKEN® "AP" AND "SC" BEARINGS.
Good seals help the bearings perform as they're meant to perform. Good performance lowers your operating and maintenance costs.

Before we put a seal on a Timken "AP" bearing, it has to qualify by our standards. We have the supplier test it. We test it exhaustively in our own laboratories and in actual use. We even have independent researchers test it and suggest improvements. Where else can you find such attention to quality in bearing components?

Timken "AP" bearings are now in service or on order for over 246,000 cars on 171 railroads and private car lines. Two million Timken "AP" tapered roller bearings have now been produced. If you're not acquainted with all 8 sizes of "AP" and "SC" bearings, see your Timken bearing sales engineer. The Timken Roller Bearing Company, Canton, Ohio.

QUALITY TURNS ON HEAVY DUTY



TIMKEN®
TAPERED ROLLER
BEARINGS

Santa Fe

E. S. MARSH, PRESIDENT
Atchison, Topeka and Santa Fe Railway System

"What the railroads are doing to provide modern and efficient transportation makes it vitally important to have timely information and idea prompters from every possible source. We on the Santa Fe find that Railway Age, with its news articles, editorials, and supplier advertising, serves this purpose extremely well. We appreciate the contribution Railway Age is making toward the success of the industry."

E. S. Marsh

Anti-L&D war gets once-over at Denver

Freight Claim Division meeting hears industry leaders tell of favorable factors in rails' battle against loss and damage.

Damaged shipments drew the attention of some top men in the industry when railroad freight claim officers met at Denver May 17-19.

Burlington President Louis W. Menk told the AAR Freight Claim Division meeting to place more reliance on the industry's special agents. Menk expects help in the battle against L&D from the increasing number of specialized cars railroads plan to acquire.

Milwaukee President William J. Quinn strongly urged the L&D-prevention specialists to not be completely involved in past and present problems because the industry is changing at a record pace. Only by thinking of tomorrow's problems will there be progress, he said, on the $150-million L&D payout.

AAR Operating Vice President R. R. Manion and Carl Byham, executive director of the AAR Data Systems Division, urged coordinated, systematic attack on the information gaps that make L&D-prevention work such a nightmare.

CB&Q's Menk told the L&D-prevention officers that a number of favorable factors are going to help improve the L&D performance of railroads. "The steady increase in the number of railroad freight cars designed to reduce damage, the use of railroad police forces to investigate causes of damage and recent Congressional action in passing a bill to encourage freight car building and ownership should have a steady affect reducing loss and damage payout, the number of claims filed and the size of individual losses."

● **Make people aware.** An advantage of using railroad special agents in the fight against L&D, said Menk, is that railroad workers at various levels are made more aware of the need for corrective action. "Yardmasters, trainmasters and others whose primary concern is getting trains over the road now are more conscious of the need for control and prevention of L&D."

Cars designed to combat L&D to shipments with such technological advancements as cushioning, insulation and modern refrigeration are important for reducing claims. "Time is on our side as every day new cars come into the national fleet and older cars are retired." Acquisition of new freight cars by railroads should proceed even faster as a result of recent passage of an incentive-to-ownership bill, said Menk.

Milwaukee President Quinn called for a "revelation in railroading," as he urged the claim officers and L&D-prevention specialists to look toward tomorrow's problems as well as today's tasks. Quinn ticked off these points:

—"We need to begin looking beyond today's operations and today's opportunities. We need to take a longer and broader look at what lies ahead for this industry.

—"We need breakthroughs into new ideas, concepts, approaches and methods which may—or may not—have similarity to those of the present or past.

—"We need to find new ways to do the old things—and new ways to do entirely new things.

—"We need to find new and better ways to use the tools we already have—and to develop, use and control the tools that inevitably are coming, and coming soon.

—"Especially, we need to find new, more effective ways of working with thousands of railroad employees, so that we can meet the changes in needs, goals, responsibilities and obligations of management and the employees; so that we can upgrade performance, training and ability at all levels of operations."

● **Comeback almost accomplished.** Quinn called for the courage to seek new directions. "Justifiably, all of us have been spending a lot of time looking at our current results and today's activities, and comparing these with what we had or did in 1961 or 1956 or 1944.

"None of us has had as much time as we'd like for looking ahead to see not only what's coming, whether we like it or not, but those things we want to come and those things we can help along. You could make a comparison that in the last few years we've been riding a runaway horse, but that soon we'll have a brand new car that has a steering wheel. From now on, we can have much more control over what's happening—and spend less time responding to what others do outside the industry.

"We'll be able to do this for several reasons. One of the most important is that we will be in better financial health. This means we'll be able to spend more for better equipment, for new tools and for generally strengthening operations. More and more, I believe we'll find ourselves with the initiative. More and more, we will be able to move aggressively, not defensively."

Quinn cited these developments already under way, or beginning to take shape, as critically important:

—Mergers. "We soon will be feeling the full impact and broadcast effects of mergers which right now are under way or in development. We can also see that these effects will be part of what will almost certainly be just the first wave of mergers. The second wave that will follow will likely be a bigger wave, with more important effects than the first."

—The probable effects of data processing applications which are already being developed and which can bring fundamental changes.

—The effects of changed technology and new equipment that the industry can expect to be using in the next few years.

Quinn asked the claims specialists: How much effect do current posters, slogans and contests have in reducing L&D? Are specialized damage-free cars economically justifiable? What are the significant causes of L&D in 1966—employee attitudes, track maintenance, equipment, time of day, routes or what? He then said, "We are going to have to break our old thought patterns, shed some assumptions and drop defensive postures. We will have to move out of some of our compartments and begin breaking some barriers that are more artificial and traditional than useful.

"We should do less thinking about current and past problems—and more about what can come if we do our jobs better. We should think less of this industry for what it is and was—and more of what it can be. We should quit thinking so much as railroad men and more as important suppliers of nationwide distribution services."

● **Agree on data needs.** Carl Byham, executive director of the AAR's data systems division, pointed out the possibilities opening up to the L&D-prevention specialists via the industry's computer capacity. He urged them to agree on meaningful data that could be assembled as input economically—that would enable experts to structure problems and profiles of L&D in such ways that an attack could be successfully mounted on the problem. ■

Radioactive Spanish soil rides Coast Line to burial ground

Nearly 5,000 steel drums were used to ship the unusual cargo.

The rain of radioactivity that fell on the plains in Spain following a hydrogen bomber crash early this year is now mainly under 10 feet of South Carolina earth—thanks to efforts of the U.S. Government and the Atlantic Coast Line.

ACL, which prides itself as a rail carrier of an infinite variety of material, was recently called upon to transport one of the oddest cargos ever to be recorded in a freight consist.

The shipment consisted of 4,827 steel drums of mildly radioactive Spanish soil and tomato vines—debris that had been collected near the seaside town of Palomares, Spain.

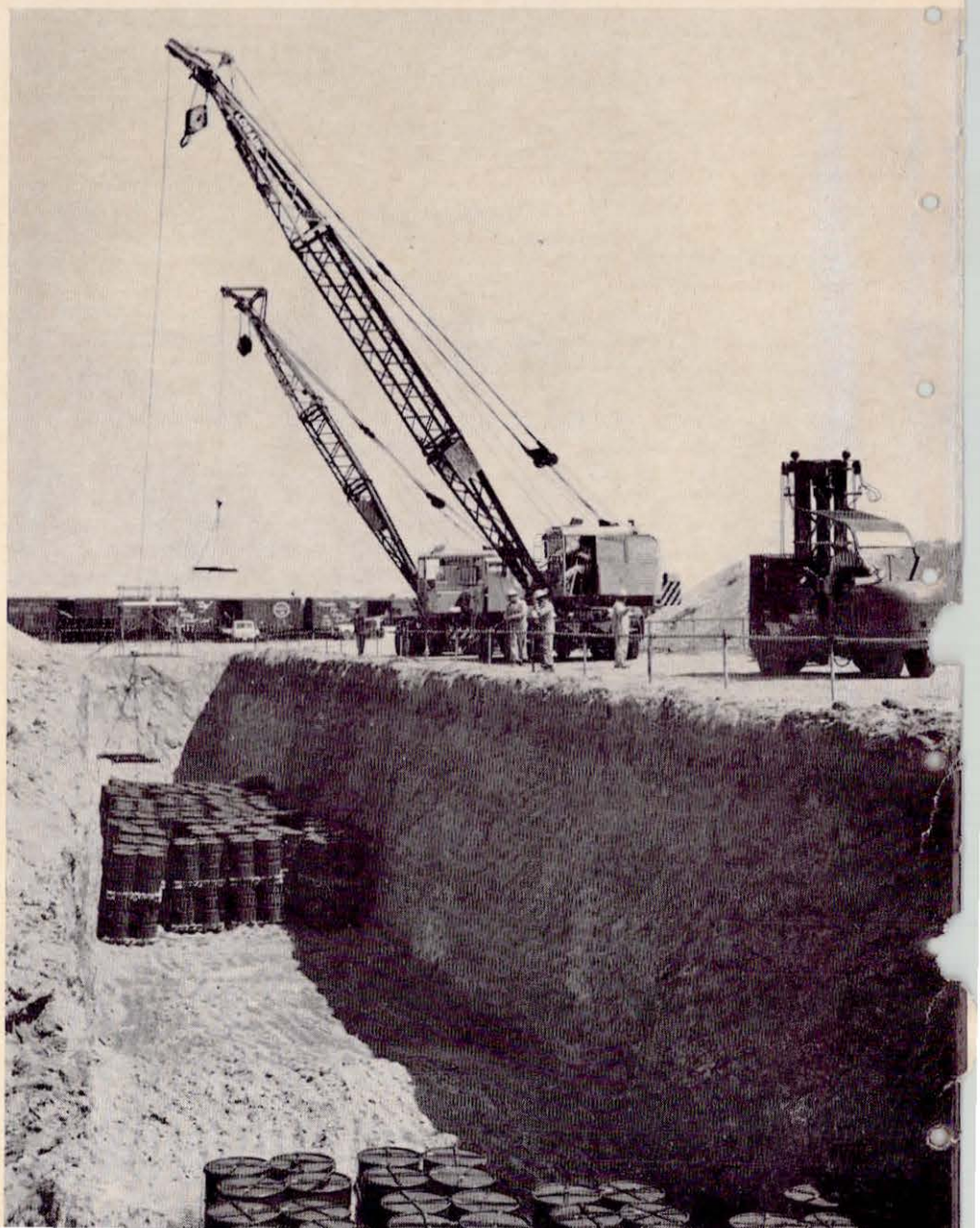
High over Palomares, on Jan. 17, two U.S. Air Force Strategic Air Command planes, one carrying atomic weapons, collided and came down in the neighboring farm land. Two hydrogen bombs burst open, spreading plutonium and other radioactive elements over the tomato fields. Two other bombs were later recovered intact, one from the bottom of the Mediterranean.

U.S. officials immediately ordered extensive tests of the crash area to determine the amount of radioactivity diffused by the accident. To relieve the fears of Spanish farmers and fisherman, all contaminated soil was collected and packed in steel drums for shipment out of the country. Some 1,750 tons of soil and vegetation containing minute amounts of plutonium and uranium were classified for disposal.

• **Shipped to U.S.** The nearly 5,000 drums of material that were filled as a result of detection efforts were shipped to Charleston, S.C. where they were transferred to 26 ACL cars for the 125-mile overland trip to nuclear dumping grounds inside the huge Savannah River Plant of the Atomic Energy Commission, near Augusta, Ga. An official of the Spanish Nuclear Energy Commission, Dr. Emilio Iranzo, joined U.S. officials to observe the unloading operations in Charleston.

The Coast Line handled the special cargo in regular freight service over its line to Augusta, Ga., scheduling the shipment in a late night freight from the Charleston Navy Yard. Meanwhile, workers at the nuclear dumping grounds

CONTAMINATED SPANISH SOIL in steel drums is unloaded from Atlantic Coast Line cars at the Atomic Energy Commission's plant near Augusta, Ga. Below, part of the shipment has been lowered into a pit for burial.



Atomic Energy Commission photos.

inside the Savannah River Plant were busy with power shovels digging a trench 20 feet wide, 20 feet deep and nearly 400 feet long to provide a burial place for the drums.

• **Shipment carefully checked.** Aside from the radioactivity aspect of the cargo—which atomic energy specialists determined to be well within standards of safety—other factors had to be considered.

The U.S. Department of Agriculture and the South Carolina State Crop Pest Commission had an interest in the disposition of the Spanish soil to assure that no injurious foreign pests were introduced into the U.S. with the contaminated earth.

Upon arrival at Charleston the shipment was thoroughly inspected by the Federal Plant Quarantine Inspector at the port, and a representative of the Department of Agriculture met the train at the Savannah River Plant to check the barrels upon arrival.

Burial of the steel drums took nearly a week. As a precaution against the possible introduction of injurious foreign insects and bugs the drums were buried under at least 10 feet of soil. Ordinarily, mildly radioactive material, such as that involved in the Spanish shipment, would be buried only three feet deep. However, because of the possibility of insect infection the waste material was buried at a much greater depth.

Disposition of the Spanish soil, according to AEC officials, was considered a routine operational procedure. The waste burial area where the barrels were buried is an area of 80 acres in the central portion of the 200,000-acre Savannah River Plant. This waste disposal area has been used since 1952. Appropriate monitoring and safety procedures were followed in the handling of the shipment by the Du Pont Company, which operates the plant for the Atomic Energy Commission.

Coast Line officials said they experienced no problems in handling the shipment. As a follow-up in the decontamination procedure, rail cars used in the shipment of radioactive material are washed down with water to remove any possible residue.

• **New agreement on atomic shipments.** Shipment of radioactive material, such as that involved in the recent movement from Spain, was the subject of a recent agreement reached by the Atomic Energy Commission and the Interstate Commerce Commission.

In a "Memorandum of Understanding" both agencies agreed on guidelines with respect to the safe transport of radioactive matter. Objectives of the memorandum are to minimize duplication and provide as much consistency as possible in regulations. ■

LUTHER MILLER

AS THE EDITOR SEES IT...

MOVING PEOPLE (AND READERS)—A certain California newspaper owes its great success (a supplier friend on the West Coast tells me) to a simple publishing formula: "Feed the readers equal amounts, once daily, of highly seasoned news on freeways, rapid transit and sex—in descending order of importance."

Let Playboy and the Freudians make of that what they will. It does bear out our observation that few things so excite readers nowadays as the problem of moving people from Point A to Point B with the least possible fuss and at the lowest possible cost. This seems to be true of readers of the general daily and periodical press, which has suddenly and urgently come alive to the problem. It is certainly true of Railway Age readers, who clearly feel that the passenger train is as unfussy and inherently economic as anything that has come along since shank's mare. With passions aroused and pens in hand, these readers responded to our recent (May 16) state-of-the-passenger-train survey with the biggest volume of mail in recent memory.

SHABBY SHOWCASE?—Some letters fell, inevitably, in the death-notice category. "Jet-planed and turnpiked to the point of death," was the premature (we hope) post mortem of a New Jersey passenger-train enthusiast, who added: "To be in any way realistic, I must be totally pessimistic."

A more common theme was expressed by C. Grattan Price, Jr., of Harrisonburg, Va., who wrote: "Any improvement in the railroads' general competitive position will, ultimately, depend on the good will and support of the voting taxpayer-citizen, who is more prone to judge railroading by its passenger service than by any other index . . .

"Passenger-service is still the show-window of railroading. If the window is dirty, and the display cases unkempt, then who can blame the customer if he passes by?"

We agree. Keep it kempt. The real question, it seems to us, is what goes in the show window. How long would Macy's stay in business if it had to fill its showcases with Saks dresses?

AT LAST—The newspapers reported last week that the CAB had renewed the license of New York Airways, a helicopter line—but had emphasized that there would be no more subsidies. I was reminded of a trip I took on New York Airways in 1957, when I whirled from Manhattan to LaGuardia Airport and back in a Sikorsky S-58. My round trip ticket, I figured at the time, cost $44. But I paid only $11. The taxpayers paid the remaining $33. One businessman who travelled New York Airways three times a week was being subsidized to the merry tune of $3,432 a year. Those of us who protested this madness a decade ago were viewed as near-sighted spoilsports. How times change.

GLEANING WOMEN—"Rails may be modernizing the Middle East," writes a globe-trotting railfan, "but at least one Turkish railway folkway would be familiar to King Solomon.

"Several years ago, while traveling through Turkey, I suddenly made two discoveries. (1) The train I was riding had stopped under its own power. (2) The last train to pass that way hadn't. Locomotive, coal and assorted chickens were fanned out about 75 yards around the right of way. While Turkish police clubbed back an impatient crowd, 20-odd black-robed women made their way through the debris, picking up coal.

"Researching the matter that evening in the piano bar of the Istanbul Hilton, I discovered that the women with baskets were widows exercising a privilege that dates back to biblical days, when widows had first gleaning rights after the crops were brought in."

Containerized freight— via FRUEHAUF equipment— pays off for Southern Railway!

Southern Railway, one of the leaders in the movement of containerized freight, uses Fruehauf Containers to give its growing list of shippers economical, fast, flexible, and dependable service.

Southern is one of a growing number of railways using Fruehauf Containers to: (1) reduce handling costs, (2) minimize packaging problems, (3) cut down or cut out pilferage.

With 20′ and 40′ Fruehauf Containers in both Van and Open Top design—supplemented by Fruehauf Trailers in piggyback operations—Southern Railway offers its customers freight-handling service tailored to individual needs . . . combining the best features of long-haul rail movements with versatile truck transportation.

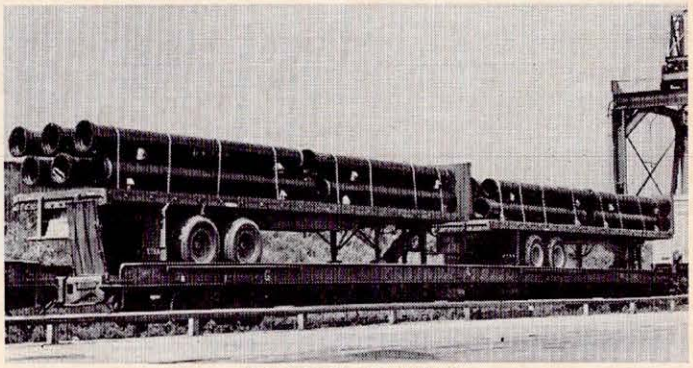
There's a cost-cutting Fruehauf container for every job. Sizes range from 4′ x 8′ for small shipments to giant 40′ over-the-road semi-trailer types. For complete information see your local Fruehauf representative or write: **Fruehauf Division, Fruehauf Corporation, 10942 Harper Avenue, Detroit, Michigan 48232.**

Leadership in ENGINEERED TRANSPORTATION since 1914

FRUEHAUF TRAILERS

Rugged FRUEHAUF Trailers serve Southern Railway in piggyback service.

OPEN TOP CONTAINERS AND TRAILERS



PLATFORM TRAILERS

DROP FRAME DRY FREIGHT VANS

Southern Railway also operates a variety of Fruehauf Trailers in piggyback service: Open Tops, Platforms and big Super-Cube Volume ☆ Vans. Some of their outstanding piggyback features: king pin welded directly to king pin mounting for extra strength . . . reinforced front Bulkhead* strongest in the industry . . . square leg supports–operate twice as fast as ordinary supports with half the effort.

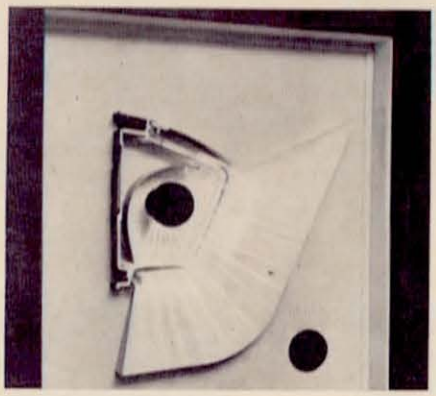
*Fruehauf Patent Pending

Circle 38 on reader service card

NEW **PRODUCTS** REPORT

Cargo Containers (RA-1)

Containers of 20 and 40 ft meeting recently adopted international standards are now available for TOFC, COFC, or Flexi-Van service. They may be lifted by crane or fork lift. Two 20-ft units may be coupled to make a 40-ft container. Basically, the system is a module 8 ft high by 8 ft wide by 10 ft long. From it come containers restricted in length to multiples of 10 ft. Special corner castings are used to lift or tie-down containers. *Container Transport International Inc.*

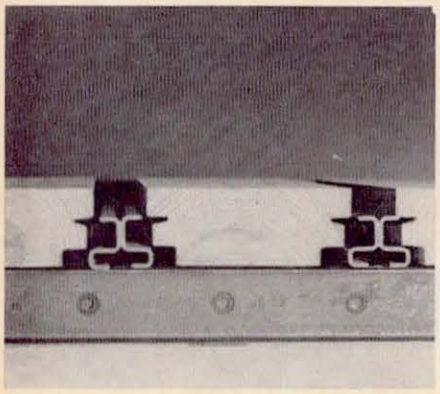


Outdoor Lighting (RA-2)

Nine Wallpack fixtures, each housing a 250-watt mercury lamp, are said to replace an equal number of 200-watt incandescent lamps on loading platform of an Allied Chemical plant, increasing lighting levels four times with a wattage increase of only 33%. The mercury lamps are said to last about 16,000 hr, supplying "approximately twice the illumination per watt as incandescent lamps." Optical prisms in refractor surfaces direct light out and away from wall. *Holophane Co.*

'Non-Rotating' Bulkheads (RA-3)

The non-rotating DFB bulkhead moves back and forth inside a car but remains parallel to face of lading at all times. Locking pins and operating handle are always under tension, assuring positive locking when operator releases handle. The bulkhead is similar to standard DFB type and is also one-man operated. It is available with a single handle in center, or with handles which can be operated from either side when in doorway area. *Evans Products Co.*



Floor Reinforcement (RA-4)

The Vanguard section of LAHT steel for reinforcing wood floors greatly increases ability of a box-car to carry heavy fork-lift truck loads; to increase cube; and to provide labyrinth joints for light, tight floors with positive blocking of granular cargo leakage. Floor joints are interlocked by a steel member to control misalignment and sagging. The section "meets all requirements of Paragraph 4.4.2 of AAR Specifications for Design, Fabrication and Construction of Freight Cars." It is secured with self-aligning, non-rotating floor clips at intermediate floor stringers and side sills by fasteners from the underside. No bolts or nails are used, eliminating protrusions which damage lading when it shifts. According to the AAR Committee on Freight and Passenger Car Construction, the section installed in box cars with four intermediate floors stringers is stronger than the regular 2¼-in.-thick T&G flooring. It can be furnished in any length and used either with 6-in. or 8-in. standard lumber. *Vanguard Corp.*

RAILWAY AGE
WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED:

1 2 3 4 5 6 7 8 9 10 11 12 13 14
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGES 74 and 75 MARKED RA-1 RA-2 RA-3 RA-4 RA-5 RA-6 RA-7 RA-8 RA-9 RA-10 RA-11

NAME ..... TITLE.....

COMPANY .....

ADDRESS .....

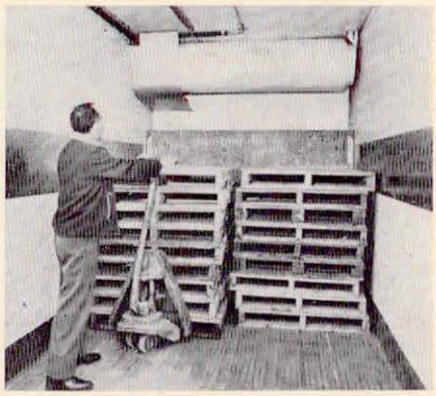
CITY ..... ZONE ..... STATE .....

5/30/66

☐ Please send information about subscribing to Railway Age

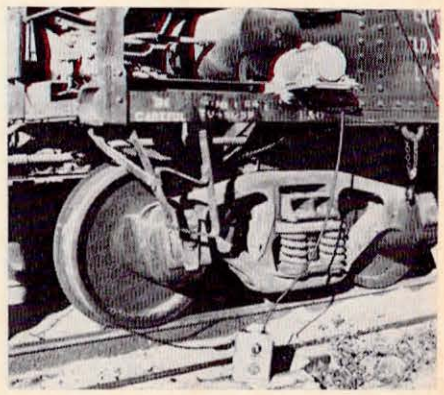
Trailer Lighting (RA-5)

A system for lighting interiors of trailers or trucks operates fluorescent lamps off either conventional 12-volt dockside power or truck's 12-volt battery. To operate off battery power, lamps on vehicles which operate away from docks should be equipped with G-E inverter ballast. Each trailer has four 15-watt fluorescent tubes housed in especially designed single-lamp fixtures, and a male plug inside door. Docks have a switch, cable and female plug. *General Electric Co.*



Nitrogen Containers (RA-6)

Liquid nitrogen containers for Polarstream refrigerated trucks and trailers are horizontally mounted against the ceiling and front wall of cargo space. The trailer unit is non-electric. It incorporates a self-contained pneumatic circuit which permits it to operate independent of tractor power. Both truck and trailer units have a nitrogen capacity of 450 lb and include standard Polarstream operating controls and accessory equipment. *Linde Division, Union Carbide Corp.*



Electric Car Shaker (RA-7)

Combined with an ECF quick clamp adapter and properly fastened, totally enclosed DVE 2500 and 3500 Vibrolators unload hopper cars from one location under all weather conditions. By tightening two set screws they may be mounted in less than 1 min. Six force settings furnish 2,656,500 to 12,075,000 impact lb per min. Speed is constant at 60 cycles per sec. Units are available in 220/440 or 550-volt, 3-phase power with external overload protection. *Martin Engineering.*

Shipping Containers (RA-9)

The structural members of a new line of sea-land-rail shipping containers, as well as the 10-ft-long tunnel section running underneath front ends, are fabricated from a special type 409 stainless steel supplied by Republic Steel. Front and rear-end frames are capable of supporting at each corner about 50,000 lb of cargo in various forms. The low-chrome-base steel is said to have high strength-to-weight ratio and corrosion resistance. *Fruehauf Trailer.*

Trailer Floor Sill (RA-8)

The weight of a 40-ft trailer is said to be reduced by 200 lb through the use of a floor crossmember of hot-rolled steel of I-beam shape with 2½-in. flanges of 60,000-psi yield material. The sill, according to Dorsey, is 17% stronger than modified box channel The sill will also be used full length of trailer instead of members of one capacity in intermediate section and a higher capacity over the suspension. *Dorsey Trailers.*

Packaging Material (RA-10)

Kiln-dried lumber, shipped on flat cars or stored openly, is said to be economically protected against the elements with Lumber-Gard, a material made of multiple layers of glass-fiber-reinforced kraft paper coated with polyethylene. Unitized loads of strapped dimension lumber may be transferred intact along the way. The material was used recently to ship over 4.5 million board feet of lumber from Washington state to midwest and northeast points. *Thilmany Pulp & Paper Co.*

Trailer Spotter (RA-11)

The cab of the "1-Step-30" Space Miser Yard Hustler is just one step from the ground. The unit has small, narrow-tread front wheels and a turning radius of 15 ft which permits parking a 40-ft trailer in highly restricted spaces with just one pass. The Hustler, with 72 in. from back of cab to center of kingpin, accommodates most trailers, including those with front-mounted refrigeration units, that have normal kingpin settings. *Ottawa Steel Products Div.*

Freight and Passenger Car Charts

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where the part is located. These charts are a part of standard training programs used on a number of major railroads.

$2 each

$10 for any six

If you are not satisfied

YOUR MONEY WILL BE REFUNDED

if you return the charts to us within 30 days

THE RAILWAY EDUCATIONAL BUREAU
1809 CAPITOL AVENUE
OMAHA 2, NEBRASKA

Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart or $10.00 for any six charts.

- ☐ **Streamlined light weight passenger car (16x25 inches)**
- ☐ **Covered hopper car (20x30 inches)**
- ☐ **Box car, AAR standard 40 ft. (23x25 inches)**
- ☐ **Air conditioned chair car, 1930 design (18x35 inches)**
- ☐ **Tank Car (22x35 inches)**
- ☐ **Refrigerator Car, wood sheathed, steel underframe, 1920 design (14x20 inches)**

RA-5/30

Name_____

Address_____

City_____ **State**_____

_____ **RR**_____

More tips for freight selling

(Continued from page 40)

Davison Chemical Division of W. R. Grace, Baltimore, would extend this to having salesmen inquire about shippers' or consignees' future needs as well as current problems.

• **Needed: Something to sell.** "Give salesmen something to sell," say both Harry Cross and Oliver Plymate, TMs, respectively, for the Wyeth Co., St. Louis, Mo., and Butler Welsh Grain Co., Omaha. Plymate suggests that the "something" should be "adequate equipment and better than one a day or one every other day service; more frequent trains instead of how long a train can be."

The latter view is echoed by R. J. Tyler, TM, Chemetron Corp., Louisville, who writes: "Have firm schedules so men who sell freight will have more confidence in their product. With consistent schedules rail service will be more valuable."

• **Better motivation; higher status.** What salesmen need most, some respondents say, is a higher degree of motivation; and others suggest that the surest way to obtain that is to give them a higher status within railway organizations.

"Select some real sales managers—people who can motivate and evaluate salesmen," writes R. P. Clinton, TM, Temperature Control Group, Honeywell, Inc., Minneapolis. And, he adds, choose as salesmen "people who are sales-minded, and not selected by seniority alone."

"Don't consider salesmen as mere 'doorbell pushers'—which they soon become if that is the way the front office regards them," cautions Southworth Lancaster, Boston transportation consultant.

"Sales management must keep trying to give their new men the tools and the desire to be helpful," says M. G. Kuhlman, Barrington, Ill., TM, Jewel Tea Co.

"Some men," he adds, "catch the vision and prepare themselves to help the customers. Others just don't seem to."

The answer to the basic problem may lie in "higher organizational status for carrier salesmen," in the opinion of F. R. Adams, Division TM, Olin Mathieson Chemical Corp., Monroe, La.

Or, according to R. F. Treptow, general traffic manager, H. D. Lee Co., Kansas City, Mo., it may be in the "upgrading of company attitudes toward sales and salesmen."

• **Don't forget the receiver.** As one final note, Howard Pollen, TM, P. Ballantine & Sons, Newark, N. J., cautions that "freight selling has not been completed until a satisfactory delivery has been made. Interest in on-time delivery is just as important as obtaining freight at origin."

And Cloninger, quoted above, also points out that freight selling is essentially a triangle—carrier to shipper to receiver.

"Why not," he asks, "vigorously pursue with both the philosophy 'What are your problems? What can we, the railroads, do to help solve your transportation and distribution difficulties?' "

In other words, as L. F. VanKleeck, TM, Brown Co., Berlin, N. H., puts it, "Create a feeling that salesmen are trying to do something for the shippers, instead of seeing what shippers can do for carriers." ■

Current Publications

TRANSPORTATION INFORMATION SOURCES, prepared by Kenneth N. Metcalf. Management Information Guide 8. Gale Research Company, Book Tower, Detroit, Mich., 48226. $8.75.

This is an annotated guide to publications, agencies, and other data sources concerning air, rail, water, road, and pipeline transportation. In dealing with the various forms of transport, the book breaks down each field according to the types of sources of information about it, including: library, government and statistical sources; periodicals, indexes, abstracts, and services; research and university programs; literature and bibliography; professional and trade organizations, and associations; transportation industry literature; organization sourcebooks; and university transportation activities. There are also author-title-source, and subject indexes. As is often the case with books of this type, parts of it are out of date, or superseded by later information, almost as soon as published, but basically it should prove to be a useful reference tool.

THE COMMERCE CLAUSE: ITS INCEPTION AND ITS SIGNIFICANCE, by Newton Morton. 39 pages, Research Paper No. 3. Bureau of Economic and Business Research, Kent State University, Kent, Ohio, 44240. $1.

RAILROAD MARKETING: ANALYSIS AND SYNTHESIS. 103 pages, illustrations, charts, tables. Railway Systems and Management Association, 163 East Walton St., Chicago, Ill. 60611. Flexible cover, $5; case binding, $8.25.

RAILROAD RETIREMENT BOARD ANNUAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 1965. 162 pages. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Sixty cents (paper cover).

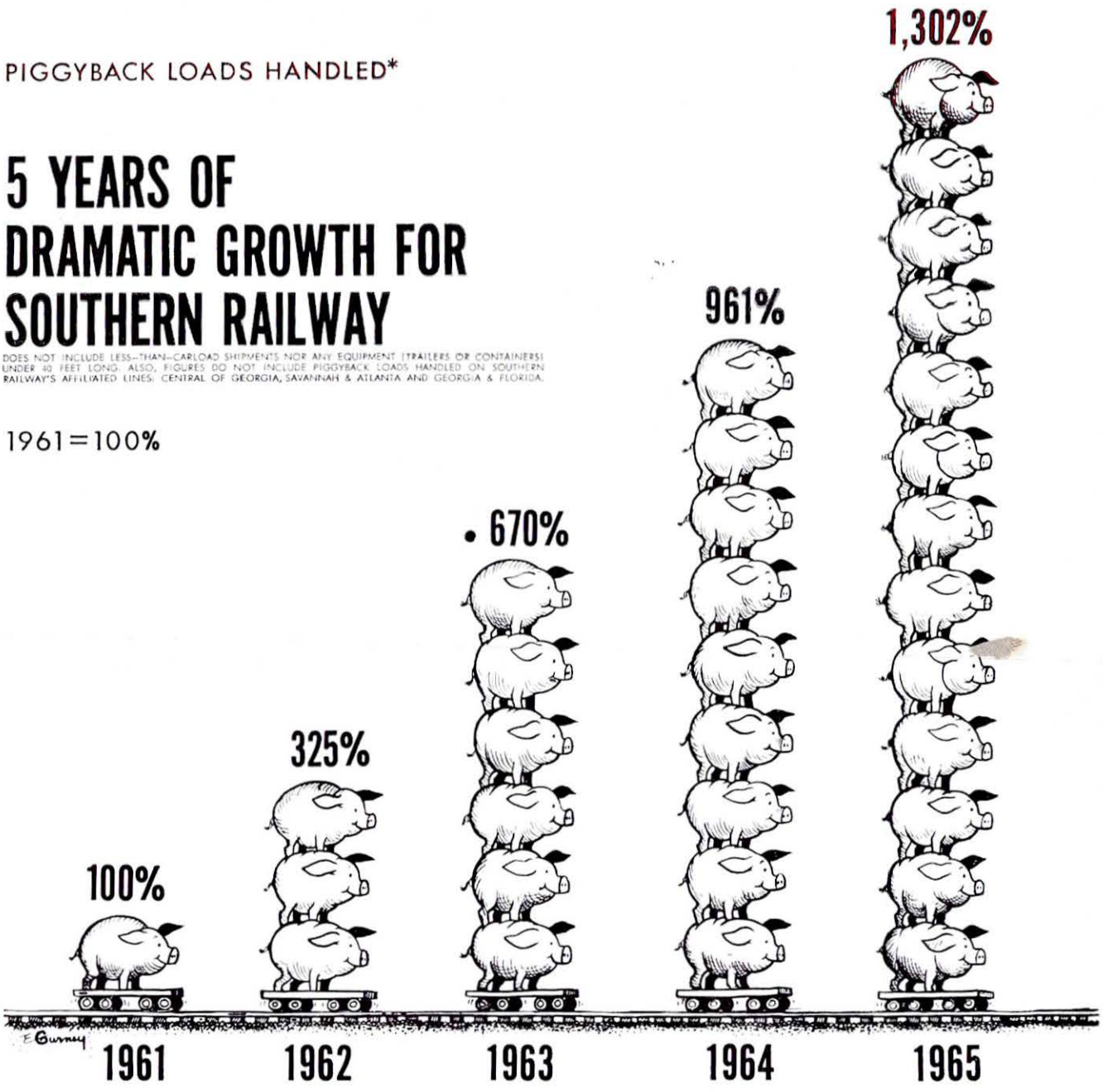
ACCIDENT BULLETIN NO. 133; Summary and Analysis of Accidents on Railroads in the United States Subject to the Interstate Commerce Act, Calendar Year 1964, prepared by the Bureau of Railroad Safety and Service, Interstate Commerce Commission. 106 pages. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. $1.25.

PIGGYBACK LOADS HANDLED*

5 YEARS OF DRAMATIC GROWTH FOR SOUTHERN RAILWAY

DOES NOT INCLUDE LESS-THAN-CARLOAD SHIPMENTS NOR ANY EQUIPMENT (TRAILERS OR CONTAINERS) UNDER 40 FEET LONG. ALSO, FIGURES DO NOT INCLUDE PIGGYBACK LOADS HANDLED ON SOUTHERN RAILWAY'S AFFILIATED LINES: CENTRAL OF GEORGIA, SAVANNAH & ATLANTA AND GEORGIA & FLORIDA.

1961=100%



Here is piggyback growth second to none!

AND FOR GOOD REASON—Southern has rail-highway equipment and service second to none.

We now have more than 3,000 pieces of rail-highway equipment to meet every shipper need . . . dryvans, controlled-temperature vans, opentops, flatbeds, dropframes . . . trailers *and* the more economical containers pioneered on Southern.

Our 60-plus rail-highway terminals operate on close-out times designed to let our customers have the advantage of a full working day. And our fast rail-highway schedules are in effect 7 days a week northbound and southbound.

All of this is why Southern's rate of growth leads the field.

Put this modern, money-saving service to work for *you*. Write or call A. J. Hinton, Director of Rail-Highway Sales & Services, Southern Railway System, P.O. Box 1808, Washington, D.C. 20013; telephone (area code 202) 628-4460. Or call the Southern Railway Sales Office nearest to you.

Southern Railway System
WASHINGTON, D. C.

Circle 34 on reader service card

Circle 35 on reader service card ►

1. Does the part meet all the original design requirements?
2. Has the part been tested and proved?
3. Will the part last as long as other parts it works with?

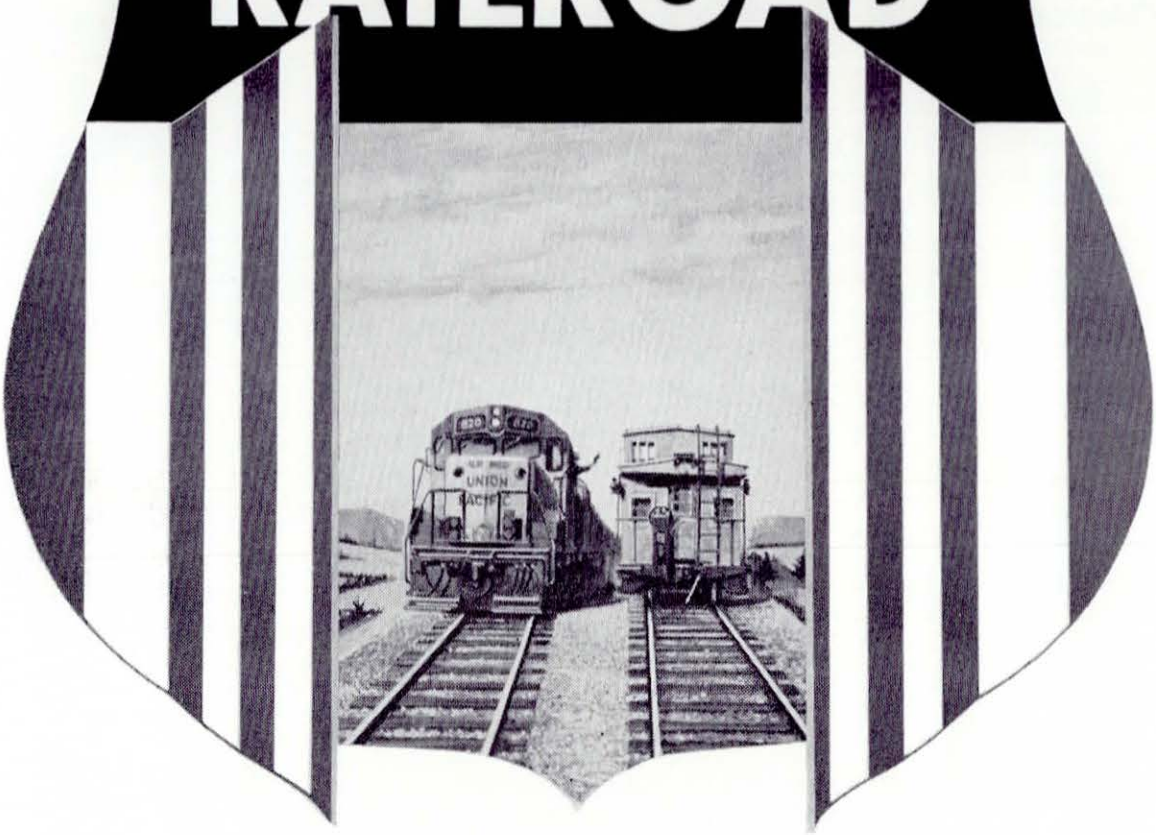
Apply this seven-way test every time you buy replacement parts for your locomotives. If you haven't received your copy of the "Seven-Way Test for replacement parts buying," write to Electro-Motive Division, Dept. ML, La Grange, Illinois.

Electro-Motive Division
La Grange, Illinois

GM

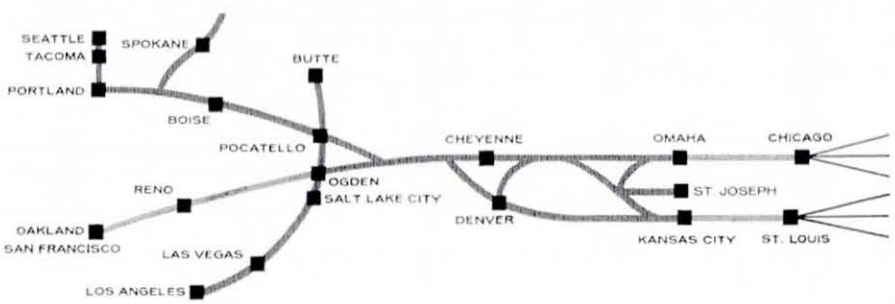
4. Is the quality worth the price difference?
5. Does the part offer you annual savings?
6. Can the part be installed without excess labor?
7. Will the technical service be adequate?

UNION PACIFIC RAILROAD



PIGGYBACK
has the inside track on Union Pacific

...THE GATEWAY TO AND FROM THE BOOMING WEST



Circle 33 on reader service card

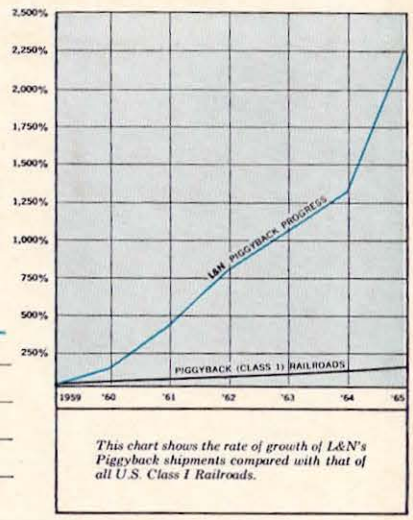
door to door delivery...

L&N Piggyback opens the door to profitunity

THE doorways to new markets swing open when you ship the fast, dependable L&N Piggyback way. If your ability to compete hinges on low cost transportation and reliable delivery schedules, let the man from L&N show you how Piggyback Service can open doors to greater profits by solving your transportation problems.

L&N READY FOR TOMORROW

L&N LOUISVILLE AND NASHVILLE RAILROAD



This chart shows the rate of growth of L&N's Piggyback shipments compared with that of all U.S. Class I Railroads.

W. G. Whitsett
Vice President, Traffic
L&N Railroad Company
P.O. Box 1198
Louisville, Ky. 40201

Please ask your freight representative to call.

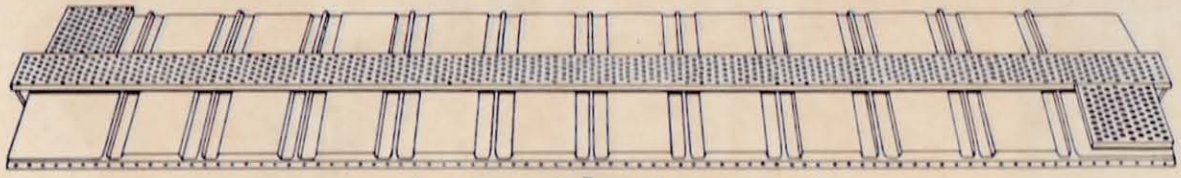
Name_____

Company_____

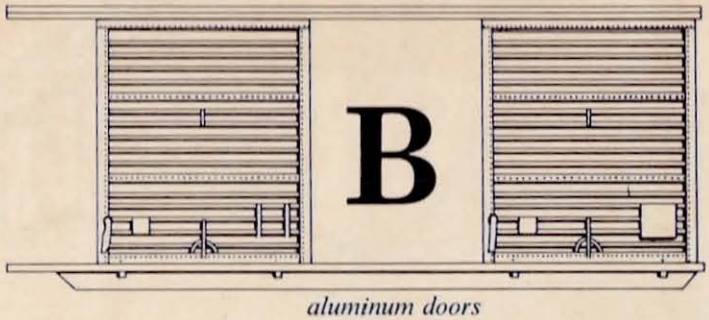
Address_____

City_____ State_____ Zip_____

Circle 65 on reader service card



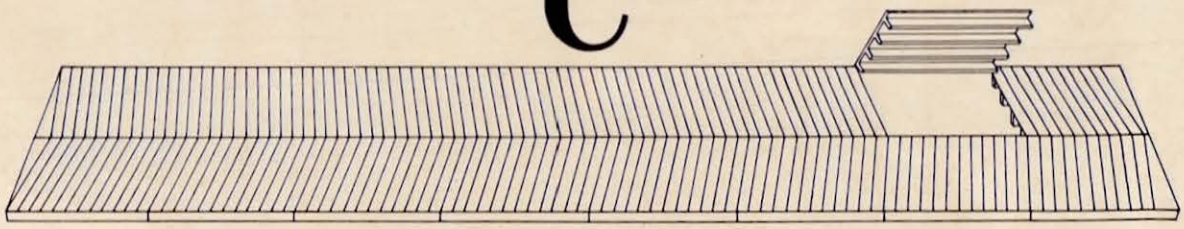
aluminum roof **A** *and running board*



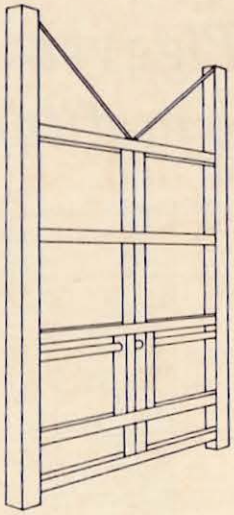
B

aluminum doors

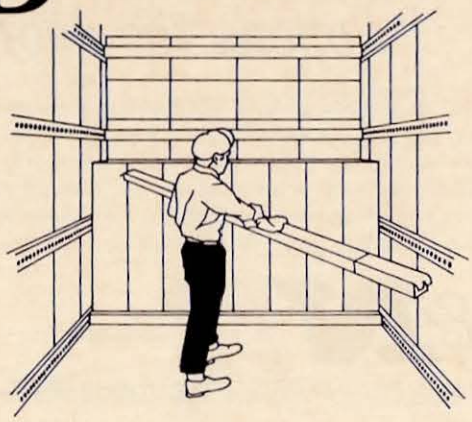
C



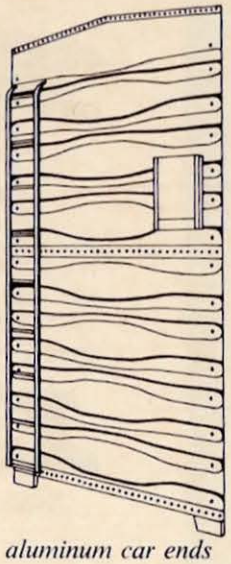
aluminum linings and floors



D

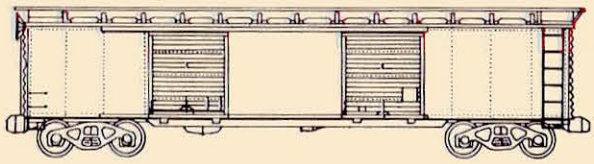


aluminum bulkheads and extruded lading bars



E

aluminum car ends



Yes, you can build a 95-ton-payload boxcar!

Follow this outline to see how you get started.

By using existing components made of Alcoa® Aluminum in railroad cars, you can build a 95-ton-payload boxcar, today! And, increase payload above the biggest boxcar now in use. Here's how to get started replacing deadweight with payload:

A Reduce weight and increase safety with an *aluminum roof and running board*—this is the least expensive way to reduce weight; on a 60-ft boxcar, you can save as much as 1,580 lb; aluminum running boards cut an additional 300 lb.

B Make handling a one-man job with *aluminum doors*—a 20-ft double-door set weighs only 1,450 lb; they're easy to open and close without bars, hammers or fork trucks; save hardware replacement; don't need paint; last longer.

C Cut maintenance costs with *aluminum linings and floors*—hinged aluminum reefer floors eliminate hot spots by improving air circulation; can be lifted by one man; save 1,650 lb; won't corrode or contaminate cargo. Nailable aluminum floors save 2,000 lb over their steel equivalent. Aluminum linings, sidewalls and ceilings resist denting, reduce maintenance costs.

D Protect lading with *aluminum bulkheads and extruded lading bars*—you save as much as 1,200 lb per car set on heavy-duty-type bulkheads; and, extruded aluminum lading bars weigh only 40 lb, yet retain heavy loads; absorb heavy shocks with no damage; will never splinter or rust.

E Lighten boxcar designs even more with *aluminum car ends*—boxcar ends of aluminum lighten a car up to 1,700 lb; need little maintenance for long life.

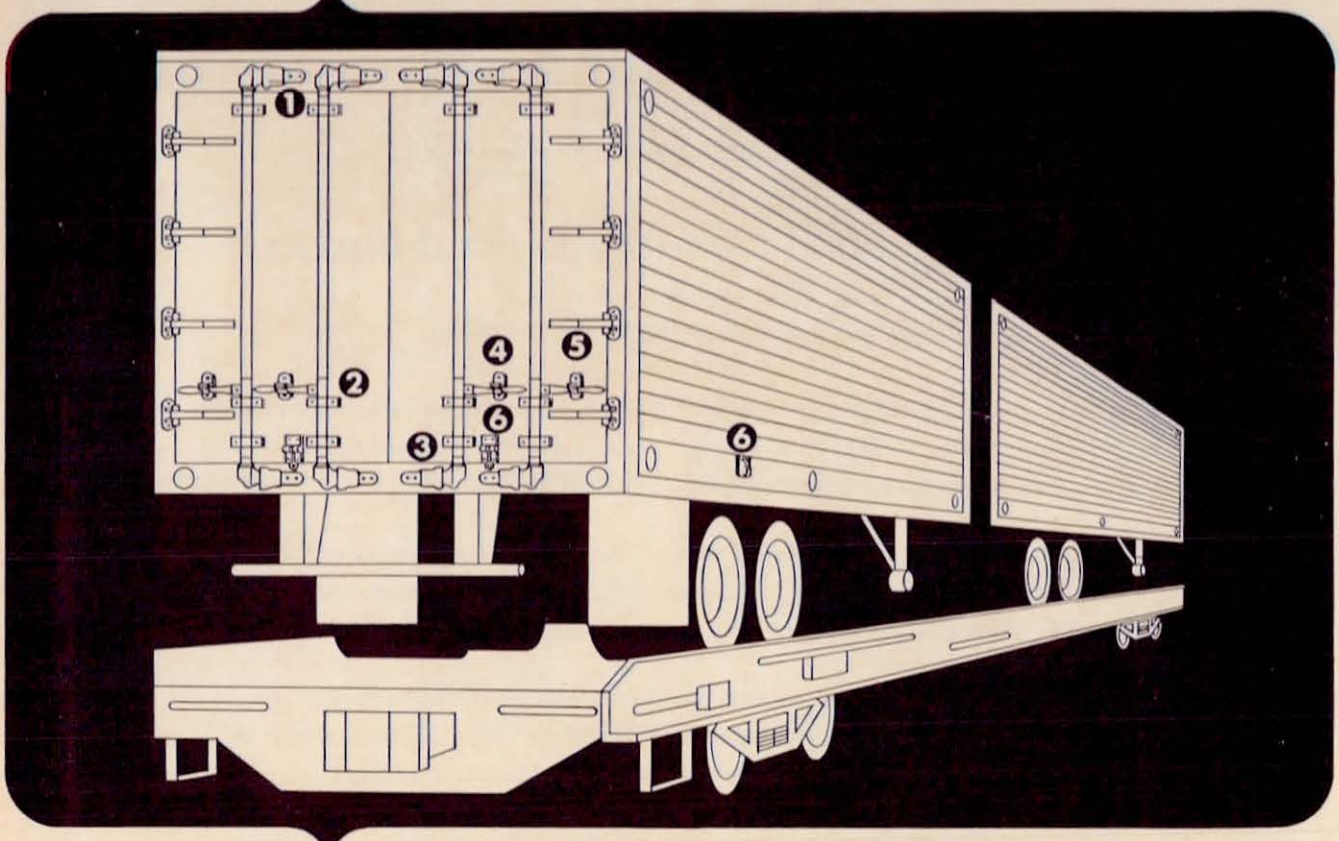
Reduce weight, increase payload, cut downtime and maintenance costs. Ask for Alcoa Aluminum, the transportation metal . . . fits in almost anywhere and helps you make money. Contact Alcoa's Rod Wilson and get more details from our railroad specialists on how to build the 95-ton-payload boxcar. Write Aluminum Company of America, 1066-E Alcoa Building, Pittsburgh, Pa. 15219.

Change for the better with Alcoa Aluminum

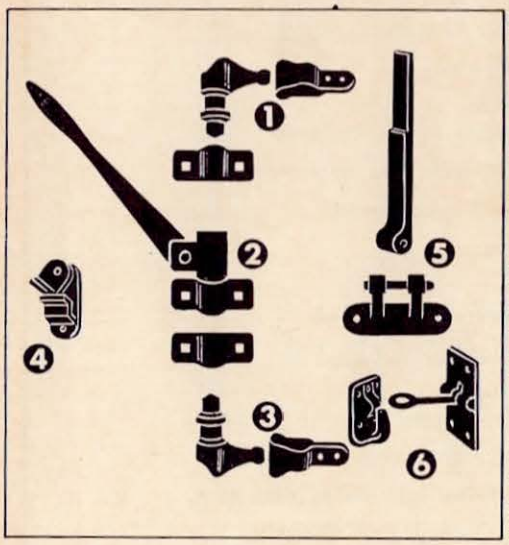
ALCOA

Circle 32 on reader service card

PIGGY BACK SECURITY!



Specify Porter rugged FORGED truck body hardware



2-POINT TAPER CAM LOCK

1. Permanent, strong welded joints.
2. Automatically closes and locks doors, even doors out of alignment.
3. Cleveland drop-forged parts deliver truck-life wear.
4. Handle bracket allows easy one-hand latching.

HINGES AND DOOR HOLDERS

5. Straps may be welded, bolted or riveted to door.
6. Forged . . . for strength.

Forged hardware is built to take the pounding and slamming of daily use—or abuse. It's durable and built to last as long as the truck it's installed on.

You can get forged hardware from Porter for any door size or any door type, as original or replacement equipment. For piggyback security, specify Porter 2-point Taper Cam Locks. They're designed to withstand the severe and damaging effects of vibration. Used with Porter forged hinges and door holders, these trailer door hardware sets provide the ruggedness and security every piggyback shipper needs. And they are forged to be better, last longer.

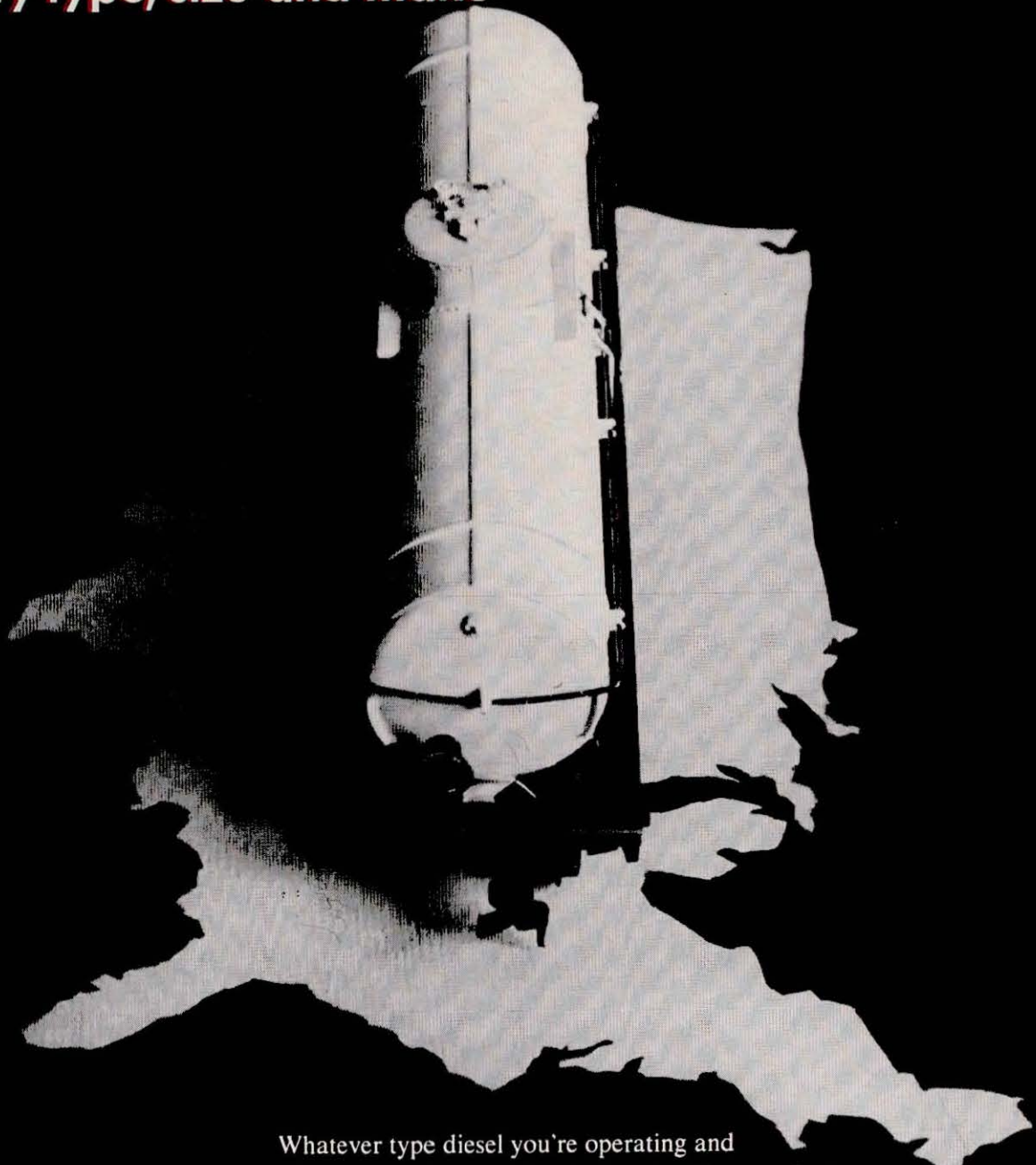
Write for your complete catalog of standard forged hardware: Cleveland Forge Works, Fabricated Metals Division, H. K. Porter Company, Inc., 3270 E. 79 Street, Cleveland, Ohio.

PORTER *FABRICATED METALS DIVISION*
H. K. PORTER COMPANY, INC.

Circle 63 on reader service card

Circle 39 on reader service card ►

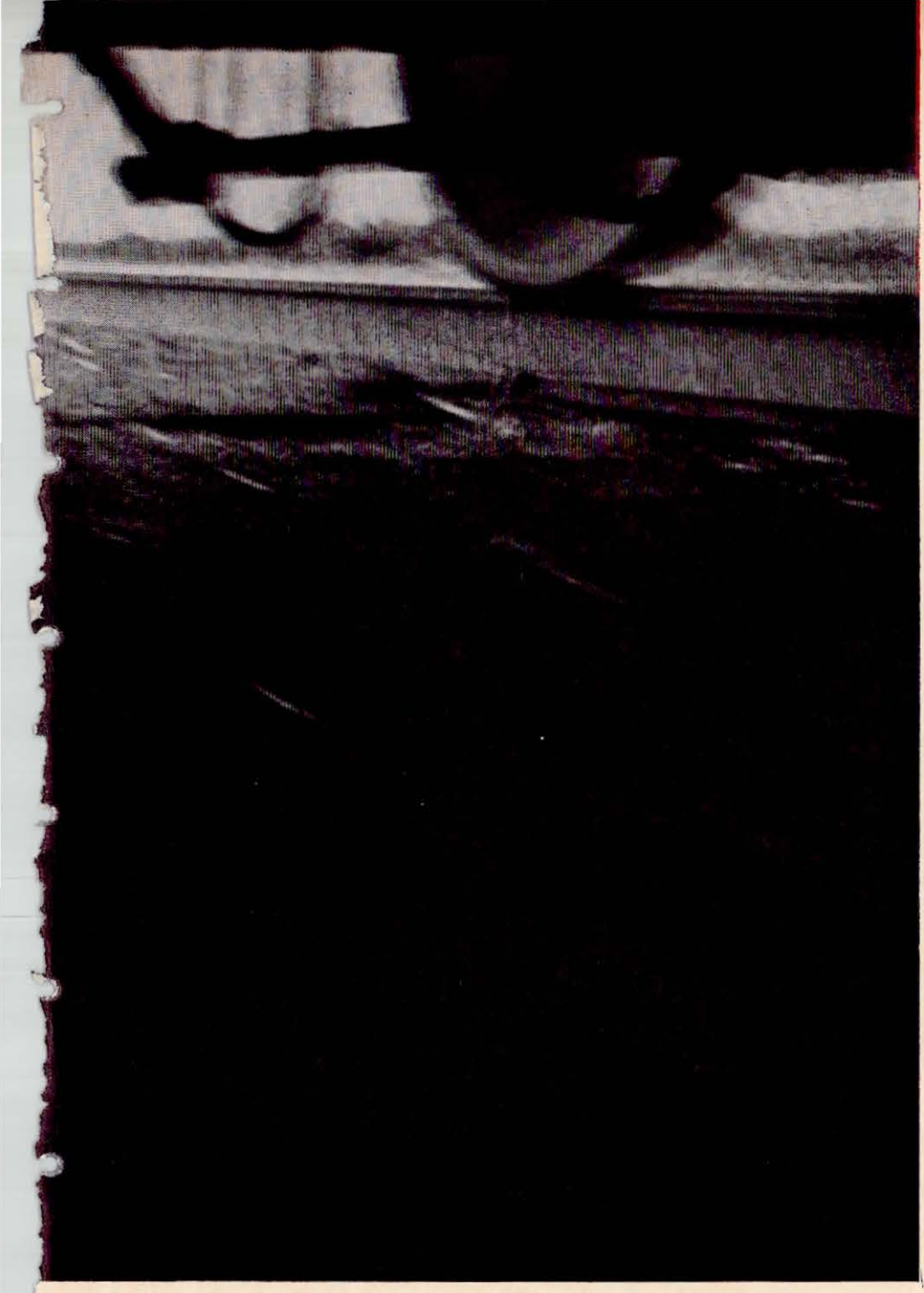
Nationwide, more than 100 Texaco tank-car loading plants can supply fuel for diesels of every type, size and make



Whatever type diesel you're operating and wherever you're operating it, there's a Texaco plant nearby that can supply you with exactly the fuel you need. • Along with Texaco diesel fuels, Texaco lubricants and Systematic Engineering Service are your best assurance of maintaining high engine availability. • Find out how easy it is to get the best. Just call the nearest Texaco Railway Sales office (there's one in New York, Chicago, San Francisco, Minneapolis, St. Louis and Atlanta), or write to Texaco Inc., *Railway Sales Division*, 135 East 42nd Street, New York, N.Y. 10017.

TEXACO

Wear is a problem:



Hi-Si® rail is a solution

An economical solution, particularly on curves, grades, and where wheel loads are known to be excessive.

How can Hi-Si Rail solve the problem? It can't completely. Wear is inevitable. But Hi-Si can lengthen the useful life of curve and grade sections from 50% to 100%. Increased silicon content makes the difference in Hi-Si Steel Rail toughness. The result is to retard gauge corner shelling, metal flow in the head and abrasion.

But CF&I Hi-Si Rail makes another difference, too. Longer continuous operating life means lower maintenance, lower repair and lower labor costs. Even the initial cost of the rail is an economy when Hi-Si's greatly increased wear characteristics are considered.

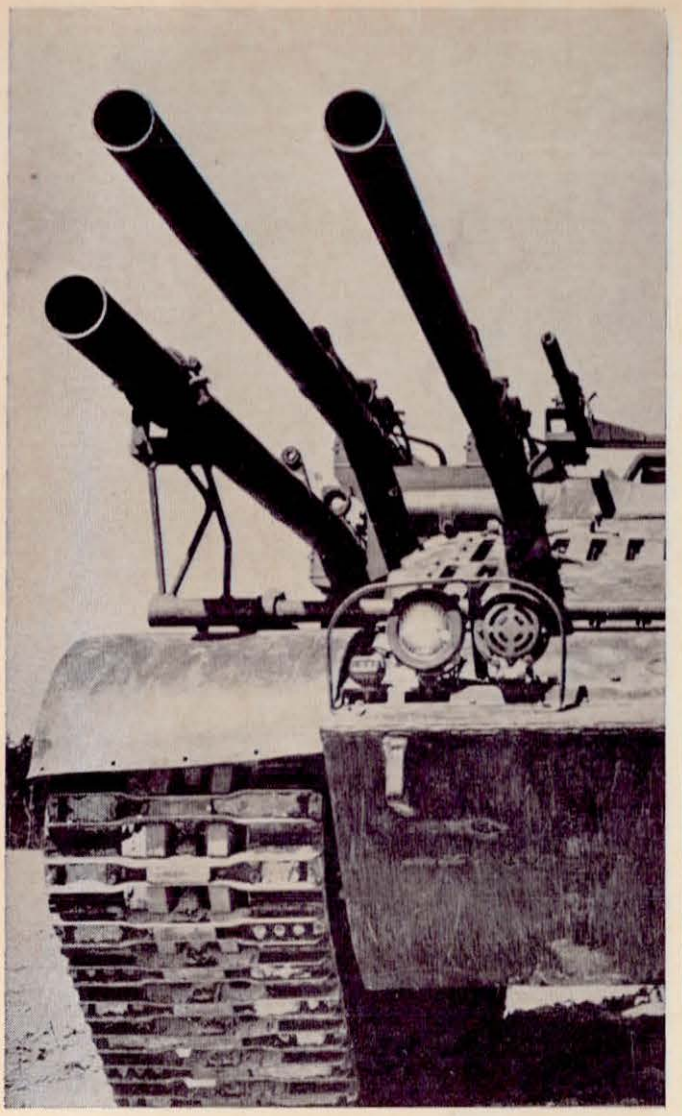
Hi-Si Rail is another example of improved rail developed by CF&I in cooperation with the railroad industry. The Colorado Fuel and Iron Corporation, Denver, Colorado.

D-274

CF&I STEEL

Hi-Si® is a registered trademark of The Colorado Fuel and Iron Corporation.

Circle 40 on reader service card



armour your boxcars with Cellon®

Steel-strong Alger-Deck rolls over those boxcar floor enemies: dry rot, decay and destructive insects. Cut from straight and sturdy longleaf pine, edge-grain strips are end-glued at finger joints and laminated to form Alger-Deck, the strongest boxcar flooring. Powerful preservatives are impregnated into each cell of wood and remain as non-leaching crystals. Stronger per pound than steel . . . treated for eternity and safe for food shipments. Get information on Alger-Deck and other Cellon-treated products; write or call Tank Crew Captain Mabry Dozier (904) 256-3456 in Century, Florida.

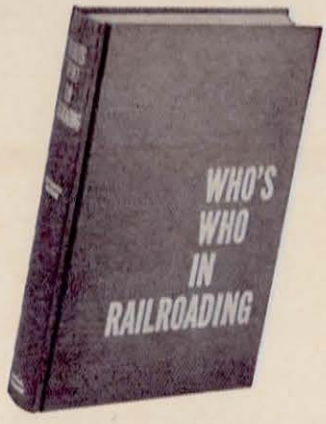
ALGER-DECK

Another outstanding product from Alger-Sullivan Co., Century, Fla.

®Koppers Company, Inc., trademark

Circle 41 on reader service card

The latest edition of one of the most effective sales aids available to the railway equipment sales executive . . .



WHO'S WHO IN RAILROADING

IN NORTH AMERICA

Here is the most recent printing of a standard volume, the "Blue Book" of the North American railway industry. It contains approximately 6,000 entries, of which over 1,500 are new. All entries carried over from the previous edition have been checked and revised to include promotions, transfers, and other important changes. The listings are authoritative, comprehensive, and alphabetically arranged for easy reference. In addition to railway executives, they include leaders in the railway equipment and supply industries, railway labor leaders, members of regulatory bodies, ICC practitioners, transportation economists, and specialists in railway finance.

Complete information is given for each biographee — present title (or position) and business address, home address, age, career (including railroad, professional, military), technical society memberships, public offices held, books and articles written, and much more. The detailed data contained in this unique volume will be widely used by all who have frequent contacts with the railway and railway supply industries.

---------- CLIP THIS COUPON ----------

Simmons-Boardman Books
30 Church St., New York, N.Y., 10007

Please send.....copies of WHO'S WHO IN RAILROADING, 15th Edition, at $20 each. I understand that unless I am fully satisfied, I may return the book(s) within 10 days and my payment will be refunded. Check ( ) money order ( ) enclosed.

NAME .....

STREET .....

CITY .....

STATE ..... ZIP .....

equal means equal

No more, no less – just equal.
That's the way the handicapped want to be considered for jobs – on an equal footing with others. No special favors, no special roadblocks. Just equal.
Hire the handicapped. It's good business.

THE PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE HANDICAPPED

GOT SIGN PROBLEMS?
DEMP NOCK
use LET-R-SET®

The unique plastic film sign kit

Here is the sign kit which gives you complete control! Allow "Let-R-Set" to answer your requiremets for those special, non-standard signs that somebody wants yesterday.

You can make any sign in minutes, and apply it when and where it's needed.

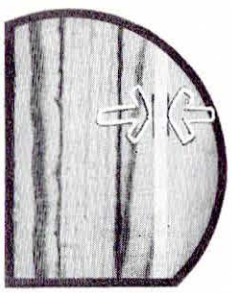
Write for complete details.

- *Fast and simple*
- *Spaces and aligns itself*
- *Professional results every time*
- *Self-sticking characters*
- *Outwears painted signs*
- *Indoors and out*
- *Wide selection of colors*
- *Sizes from 1" to 4"*

THE DEMP-NOCK COMPANY
21433 MOUND ROAD • WARREN, MICHIGAN 48090

Circle 42 on reader service card

FRUIT GROWERS EXPRESS CO.
...uses kemPLY® LINER TO PROTECT CARGO



Cross section of ¼" KEMPLY enlarged 3 x's shows relative thickness of surface. Type FG6.

KEMPLY has a thick, hard, impervious surface.

- Holds up under constant impact
- Easily cleaned with steam or detergents
- Does not retain odor of cargo
- Not affected by sub zero temperature
- Installs like conventional plywood
- U. S. D. A. Accepted
- Available white or colored

KEMPLY is not surfaced with a mat, but a closely woven glass fabric. The fibers are imbedded deep in resin, and not close to the surface where they may easily become exposed by abrasion. KEMPLY stops splintered walls from damaging cargo.

KEMPLY is available in thicknesses of ¼", ⅜", ½", ⅝", ¾" and 1"; in standard 4'x 8' panels; and in lengths up to 24 ft.

SPECIFY KEMPLY FOR REEFERS • TRAILERS • CONTAINERS

Send for prices and sample kit No. 24

kemlite
KEMLITE CORPORATION
DEPT. RA
101 N. REPUBLIC AVENUE, JOLIET, ILLINOIS

Circle 43 on reader service card

OLD RELIABLE

The Model 1855 .58 caliber muzzle loading "rifle-musket" was the first reliably accurate arm issued to the American foot soldier. Union and Confederate infantrymen used it with telling effect during the Civil War. Its 40" long barrel had 3 grooves which enabled a good marksman to do precision shooting up to 200 yds.; at 500 yds. he could hit a target six feet by six feet with ease. Even by today's advanced weapon standards, the Model 1855 was a very effective and reliable weapon—simple in operation, easy to care for, and extremely durable.

Photograph by Arie de Zanger—from THE TREASURY OF THE GUN

Cars don't earn revenue in the maintenance shop. Every hour a car is out of service costs someone money. That's why *reliability* is a "buy word" in a railroad man's language. And reliability is the reason why so many shippers and railroads are specifying the Keystone SHOCK CONTROL System for their cars. The extremely efficient cushioning action of Keystone SHOCK CONTROL units is now well known to both railroad men and shippers alike. Their rugged strength and reliability in actual day to day service has never been equalled—and this is the pay off when cars must be kept rolling to earn revenue. When you think of cushioning systems, think of Keystone SHOCK CONTROL—the pioneer in the field and leader in reliability. May we send you complete details on the Keystone SHOCK CONTROL System? Keystone Railway Equipment Co. 310 S. Michigan Ave., Chicago, Ill. 60604

NO MATTER WHERE YOUR PLANT IS, OUR RAILROAD RUNS RIGHT BY IT.

Because our piggyback trailers can go wherever you are.
No matter how far "off line" you may be.
And they'll take your products by train to wherever your customers are.
Very likely at less cost, with less paperwork than your present shipping method.
So isn't it time you got over the notion that you're too far "off line" for low-cost piggyback service?
Talk to your nearest Coast Line man or write direct to J. W. Plant, Manager, Trailer Train Service, Atlantic Coast Line Railroad, Jacksonville, Florida.

ATLANTIC COAST LINE RAILROAD

◄ Circle 44 on reader service card

Circle 45 on reader service card

A hard pin, nowadays, is good to find.

And they don't come any harder than Ex-Cell-O "F" series railroad pins. We shove high carbon steel through induction coils as hot as Hades. It's brought to hardening temperature instantly, then quenched. So there's no distortion. No rough forging like mild steel. Every pin is tough, uniform, swathed in zinc for a smooth rust-free break-in. All ready to put in a million miles of service. If you ask us, that's pretty hard to beat. For information and price bulletins A2D and A3C, contact your Ex-Cell-O representative or write Railroad Sales, Ex-Cell-O Corporation, 1200 Oakman Blvd., Detroit, Michigan 48232.

XLO

EX-CELL-O CORPORATION

Circle 46 on reader service card

PEOPLE IN THE NEWS

George F. Defiel
Burlington

Truman L. Brandt
C&NW

ALTON & SOUTHERN.—**Lawrence L. Schaltenbrand,** executive vice president and chief executive officer, elected president and chief executive officer.

BURLINGTON.—**George F. Defiel** appointed director of industry and agriculture, Chicago, to succeed **O. O. Waggener,** retired. Mr. Defiel was formerly assistant to the president, **Frisco,** Oklahoma City.

CANADIAN NATIONAL—**D. W. Brayshaw,** staff development officer, Personnel and Labor Relations, appointed employee relations officer, Transportation and Maintenance, Montreal.

C. E. Reynolds, engineer, special duties, appointed general superintendent express freight, St. Lawrence Region, Montreal, succeeding **A. Olynyk** (RA, March 7, p. 31).

R. L. Gray, associate regional engineer, appointed regional engineer, Great Lakes Region, Toronto, Ont., succeeding **W. E. Griffiths,** retired.

R. S. Carey, superintendent of the joint CN-Norfolk & Western St. Thomas Division, appointed special assistant, CN, London, Ont.

J. E. Martel appointed operations manager, Quebec Area, succeeding **J. F. M. Huneault,** resigned to accept a senior position with another company.

S. J. Curreri, co-ordinator accounting development, St. Lawrence Region, appointed senior methods analyst, Great Lakes Region, Toronto, succeeding **J. G. Buchan,** transferred.

George H. Cunningham, Maritime area passenger sales manager, named passenger sales manager, Atlantic Region, Moncton.

Alex H. Hart, vice president—freight sales, Montreal, has announced realignment of responsibilities to strengthen freight marketing activities with greater emphasis on customer orientation. **John C. Gardiner,** assistant general freight sales manager, named general manager—pricing and development. **Russell A. Silk** appointed general manager of planning and promotion. **A. Ray Williams,** freight sales manager, named general manager—customer relations. **Henry W. Craig,** manager foreign freight sales, appointed general manager—foreign freight sales.

R. W. Bowman, assistant to chief of transportation, Montreal, appointed superintendent transportation Toronto, succeeding **A. A. Smail,** promoted.

CANADIAN PACIFIC.—**E. C. B. Macnabb,** assistant manager traffic research, Montreal, appointed assistant to the chairman and to the president.

H. A. Kerns, supervisor signal construction, Prairie Region, Winnipeg, appointed assistant regional signal engineer there. **A. J. Popp,** assistant signal supervisor, Moose Jaw, Sask., named supervisor signal construction, Winnipeg. **D. H. Archer** appointed project supervisor, Winnipeg.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—Engineering Department appointments (former positions in parentheses):

Regional assistant chief engineers—**J. W. Brent,** Western Region, Cincinnati, Ohio (staff engineer, B&O); **E. M. Cummings,** Northern Region, Detroit, Mich. (engineer maintenance and construction, B&O); **W. M. S. Dunn,** Central Region, Pittsburgh, Pa. (same title, C&O, Huntington); and **H. W. Kellogg,** Southern Region, Richmond, Va. (same title, C&O, Huntington).

Assistant chief engineer—maintenance, Huntington, W. Va., **B. J. Johnson** (assistant chief engineer, B&O).

Assistant chief engineer—construction, Huntington, **F. R. Rice** (assistant chief engineer, C&O).

Assistant chief engineers—staff, Baltimore, Md., and Huntington, respectively: **C. L. Kroll** (assistant chief engineer, B&O) and **J. W. Winger** (prod. engineer, B&O);

T. L. Carlson appointed general superintendent—signals and communications, Huntington (same title, C&O).

Frank L. Doherty appointed district sales manager, Pittsburgh, succeeding the late **C. C. Hoover.**

CHICAGO & NORTH WESTERN.—**Truman L. Brandt** appointed assistant vice president-

A NEW ADVANCE in electronic weighing systems

by Ametron

The new SPADAR model high speed motion weighing system is the fastest and most accurate system available by actual field tests. It records weight in a response time of less than one second, using all solid state components. The SPADAR maintains complete averaging and integrating of any high frequency vibration inherent in the system and it is particularly designed for two draft weighing as well as for up-grading of present scales to accommodate the new longer wheel base railroad cars.

Operation is simple . . . you get results fast and accurately.

Send for Technical Data Sheet D-5600 today.

SPEED SA ACCURACY

Standard of accuracy since 1888

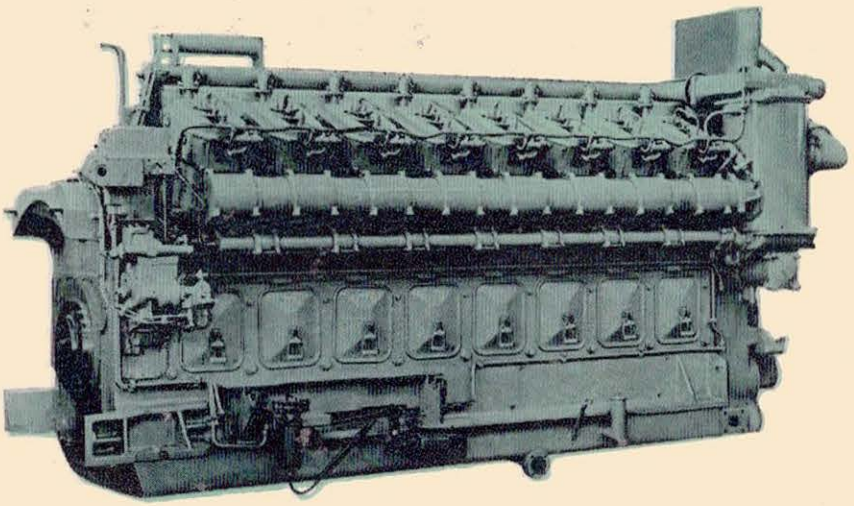
STREETER-AMET

DIVISION OF GOODMAN MFG CO.

212 WICKS ST. • GRAYSLAKE, ILL.

Circle 47 on reader service card

Keep all 5662 parts in your General Electric engine working together as an efficient team...



Specify General Electric renewal parts!

Efficient performance of a diesel engine is the result of competent personnel, sound maintenance practices and most important . . . quality parts working together as a unit.

Your General Electric diesel engine operates efficiently only when its 5,662 parts work together as a team. The best way to maintain this teamwork is to use only the renewal parts designed and manufactured specifically for G-E engines.

For example, piston rings with proper ring design, engine bearings that fit G-E's journal-to-bearing clearances and fuel oil filters specifically designed to protect the G-E fuel injection system are benefits you are assured of with General Electric engine parts. In addition, all G-E parts reflect today's advancing technology, necessary for modernizing your engines to meet the increasing demands of high-speed, high-horsepower performance.

Remember, each custom-designed part in your G-E engine is designed to perform with the other parts on your G-E engine team. Why run the risk of breaking up this team? Call your General Electric Parts Sales and Application Engineer in:

Atlanta	*(404) 351-4400*	*New York*	*(212) 751-1311*
Chicago	*(312) 663-4141*	*Philadelphia*	*(215) 568-1800*
Cleveland	*(216) 523-6000*	*Pittsburgh*	*(412) 281-6400*
Erie	*(814) 455-5466*	*San Francisco*	*(415) 434-2211*
		St. Louis	*(314) 436-4343*

121-25

GENERAL ELECTRIC

Circle 48 on reader service card

George H. Ellis
MeC-PT

Frederick J. Orner
New Haven

Charles V. Sheriff
NYC

Joseph M. Ostrow
NYC

Don P. Ainsworth
NYC

William A. Noell
N&W

finance. He was formerly director of corporate development, **Allstate Insurance Co.**

CHICAGO TRANSIT AUTHORITY. — **George J. Schaller** named general attorney, to succeed **William J. Lynch,** who retired March 31 upon his appointment as a judge of the U. S. District Court for Northern Illinois.

DENVER & RIO GRANDE WESTERN.—**L. J. Poelstra** appointed district freight and passenger agent, Oakland, Calif.

DULUTH, MISSABE & IRON RANGE.—**George E. McCall** appointed assistant manager of sales. Mr. McCall has been associated with the DM&IR for 15 years and formerly was trainmaster.

ERIE LACKAWANNA.—**James P. Morrissey,** assistant methods engineer, Marion, Ohio, appointed engineer—staff, Cleveland. **John R. Fortney,** track supervisor, Hoboken, N. J., appointed assistant methods engineer, Youngstown, Ohio.

G. W. Herkner, Jr., assistant to general superintendent, Hoboken, N. J., appointed assistant director of research, Cleveland, Ohio.

FORT WORTH & DENVER.—**G. H. Eastham,** general storekeeper, Childress, Tex., retired May 10.

GULF, MOBILE & OHIO.—**W. M. Green,** auditor of joint facilities, retired April 30 after over 52 years of service. **J. D. Guess** appointed auditor miscellaneous accounts. Mr. Guess will be responsible for handling and accounting for joint facility and miscellaneous bills (except bills covering car repairs and material and supplies which, as heretofore, will be handled by **C. F. Clancy,** auditor of disbursements). **W. F. Powell** appointed assistant auditor miscellaneous accounts. **F. M. Crivellari** named assistant auditor of disbursements. **L. S. Hickman, Jr.,** appointed manager, resources and industrial development, Mobile, Ala.

ILLINOIS CENTRAL.—**John P. Lange** named labor relations officer, Chicago.

LOUISIANA & ARKANSAS.—**D. E. Johnson** appointed trainmaster, Shreveport, La.

LOUISVILLE & NASHVILLE.—**W. Ralph Gregory,** district passenger agent, St. Louis, transferred to Atlanta, Ga., to succeed the late **John H. Howard.**

MAINE CENTRAL — PORTLAND TERMINAL.—**George H. Ellis,** appointed freight traffic manager, Portland, Me., effective June 1. Mr. Ellis had been assistant comptroller—revenues, MeC.

MILITARY TRAFFIC MANAGEMENT & TERMINAL SERVICE.—On May 16 the Central Area, MTMTS at St. Louis, Mo., assumed control of the traffic management functions of Southwestern Traffic Region, MTMTS, Dallas, Tex.

MILWAUKEE.—**Robert L. Johnson,** division freight and passenger agent, Sioux City, Ia., named general agent, Denver, to succeed **H. E. Ridenour,** retired. **Alfred J. Dittmar,** general agent, Houston, transferred to Sioux City. **Van Dunfee,** general agent, Chicago, appointed assistant traffic manager there. **William V. Johnson,** district representative, rail highway sales, Chicago, transferred to Seattle.

Gail F. Meintzer, assistant general agent, Milwaukee, named general agent, Chicago.

MISSOURI PACIFIC-TEXAS & PACIFIC.—**W. W. Artt** named general agent, El Dorado, Ark., to succeed **D. H. Haynie,** who retired April 30 after almost 49 years' service.

MONON.—**N. L. Hearn,** assistant treasurer, elected treasurer. **Edward Volenec,** cashier, named assistant treasurer.

NEW HAVEN.—**Frederick J. Orner,** vice president and executive assistant, appointed senior vice president at New Haven, Conn. (RA, May 16, p. 12). Mr. Orner will have general direction and supervision of all internal affairs and operations of the road.

NEW YORK CENTRAL.—**Charles V. Sheriff,** general manager of pricing, New York, appointed to the newly created position of assistant vice president—pricing. He will direct all freight pricing activities, except coal and iron ore traffic. **Joseph M. Ostrow,** assistant general manager of pricing, succeeds Mr. Sheriff as general manager of pricing.

Richard J. Welsh, manager, mail and express traffic, New York, appointed director, mail and express.

Don P. Ainsworth, assistant director of market research, New York, appointed director of market research. **John F. Battel** appointed manager of paper industry services, a newly created position. Mr. Battel was associated with the International Paper Co. for 11 years.

J. Robert Clark, superintendent, River division (New York district), Weehawken, N.J., transferred to the Western (Chicago) division, Chicago, succeeding **Donald A. Swanson,** named superintendent, Buffalo, N.Y., division.

Roy L. Milbourne, director of Flexi-Van sales and service, NYC Systems, New York, will retire June 30 after 46 years with the road.

R. C. Marquis, district transportation superintendent, Detroit, Mich., appointed director of freight car utilization, New York. **H. J. Slavin** appointed director of freight train operation, New York. Abolished position of director of freight train operation and car

LEASING AND RENTAL Long or Short Term
With or Without Maintenance

GENERAL TRANSPORT EQUIPMENT offers the Greatest Variety of Rolling Stock From it's UP-TO-DATE Pool of **TRAILERS • TRUCKS • TRACTORS • CONTAINERS** efficiently insulated / **REFRIGERATED TRAILERS** for **SHIPPERS** of **WET** or **DRY** perishables, PROTECTED by **GFT's "TEMP-CONTROL'D"** assurance! Operators **EVERYWHERE** find Our **LEASING SYSTEM** ideally **ECONOMICAL** and, above ALL . . . **RELIABLE!** So if you need a **single piece** or a **FLEET,** why not give us a fast Call—
Re: **ANY TYPE** of **TRANSPORT EQUIPMENT**—Especially **PIGGYBACK!**
Headquarters • MAIN FACILITY
1800 WEST 43rd STREET
CHICAGO, ILLINOIS 60609

PIGGYBACK
AND HIGHWAY EQUIPMENT
LEASING ENGINEERS
SINCE 1919

A SUBSIDIARY OF
CONSOLIDATED LEASING CORP. OF AMERICA

"Signal and of Service Dependability"

GENERAL TRANSPORT EQUIPMENT CO., INC.

J. J. HALL
President

• TEL. FR 6-8070

Also . . . SAN FRANCISCO • OAKLAND • LOS ANGELES AND JERSEY CITY, N. J. •

Circle 49 on reader service card

NOW...

ALL "PL" TYPE CUT-OUT COCKS HAVE O-RING SEALS!

The New York Air Brake Company was first to offer Teflon* coating of Cut-Out Cock Keys having the advantages of permanent lubrication, ease of operation and freedom from corrosion.

Now—with the introduction of O-Ring Seals to the full line of "PL" type Cut-Out Cocks, the troublesome leakage of air to atmosphere at the upper end of the Key is effectively eliminated. Additionally, plating of all external and internal surfaces of Cut-Out Cock bodies after machining, provides hard and durable anti-corrosion protection.

Write for full information on these permanently reliable, low-cost Cut-Out Cocks.

**Registered trademark of DUPONT*

Another Product Innovation by

RAILROADS GEARED TO PROGRESS RPI MEMBER

THE NEW YORK AIR BRAKE COMPANY

230 PARK AVENUE • NEW YORK, N. Y. 10017

Circle 50 on reader service card

READING RAILROAD
PHILADELPHIA, PA.
19107

Circle 51 on reader service card

utilization, formerly held by Mr. Slavin.

NORFOLK & WESTERN.—**William A. Noell,** general manager, Pocahontas region, Bluefield, W. Va., appointed vice president—personnel, Roanoke. **Richard F. Dunlap,** assistant vice president—operations, advanced to vice president—operations, Roanoke. Both are new positions. **Harry C. Wyatt,** senior vice president, continues as a member of the president's staff, directing special projects. **Jerome C. McCarthy,** manager—metallurgical coal, appointed director—export coal, New York, succeeding **Lawrence T. Forbes,** named vice president—coal traffic, Roanoke. Mr. Forbes succeeds **William L. Bailes, Jr.,** resigned. **Wilford C. Stevens,** superintendent, Pittsburgh division, succeeds Mr. Noell as general manager, Pocahontas region. **C. W. Lewey,** trainmaster, Scioto division, succeeds Mr. Stevens at Pittsburgh.

Donald E. Turney Jr., division engineer, St. Louis terminal, named division engineer at Muncie, Ind., succeeding **M. B. Allen,** retired. **J. G. Wood,** senior assistant engineer, Moberly, Mo., succeeds Mr. Turney at St. Louis.

Raymond M. Gillespie, chief of special services, Western region, St. Louis, named chief special agent, Roanoke, succeeding **Thomas E. Moore,** retired after 44 years with the N&W.

Rex P. Sayers, special claim agent, Roanoke, promoted to chief claim agent, a new position.

Norman G. Hannig, sales representative, traffic department, St. Louis, named district manager piggyback there.

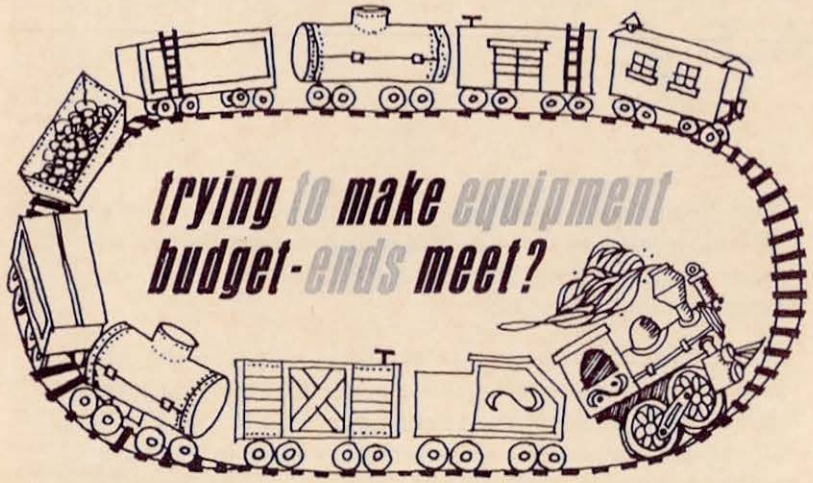
NORTHERN PACIFIC.—**D. N. Englehardt,** assistant district storekeeper, Livingston, Mont., promoted to district storekeeper there, succeeding **H. E. Nelson,** who retired May 1 after more than 43 years of continuous service. **G. W. Michels** succeeds Mr. Englehardt.

Richard F. Dunlap
N&W

Lawrence T. Forbes
N&W

D. H. King, superintendent, Tacoma division, named general manager-lines east of Livingston, Mont., with headquarters at St. Paul. Mr. King's successor is **J. O. Davies,** superintendent, St. Paul division, who in turn is replaced by **R. K. Mossman,** assistant to the vice president-planning.

PENNSYLVANIA.—**George Baylor,** resident engineer, Pittsburgh, appointed chief engineer, Pittsburgh improvements. Mr. Baylor will supervise studies and work needed to rearrange and adjust existing railroad facilities to meet the requirements of the 148-acre Penn Park renewal project. Mr. Baylor will coordinate his efforts with those of **George M. Smith,** general manager, Central Region, and **Stanley K. Harbison,** manager of real

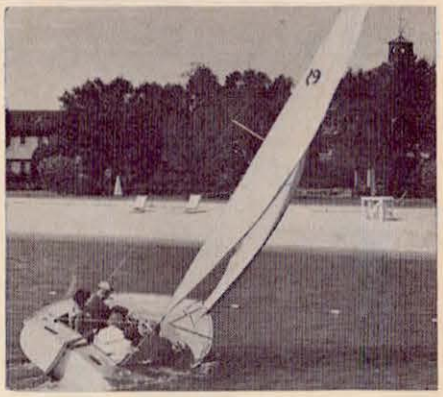


lease! *If your budget doesn't cover all your "AFE's"—don't do without—LEASE IT! Terms to suit, low rates.*

NATIONWIDE RAILROAD LEASING, Inc. Computers and Data Processing Equipment • Ballast Work Equipment • Grading Equipment • Cargo Containers • Cranes • Draglines • Drilling Machines • Fork Lift Trucks • Metal Working Machinery • Pile Hammers • Powered Maintenance of Way Equipment Microwave Equipment • Power Shovels • Piggyback Trailers • and of course, Locomotives and Rolling Stock ***RAILWAY AUTOMATED MACHINERY COMPANY (RAMCO)*** for Continuous Rail Welding • Maintenance of Way Equipment and Service ***INTERNATIONAL CAR CORP.*** All-Door Car • Quality Cabooses

railroad industry subsidiaries of
NATIONWIDE LEASING COMPANY
Federal Reserve Bank Building
164 West Jackson Blvd., Chicago, Illinois 60604 • Telephone: 922-8450, Area Code 312

Circle 52 on reader service card



Enjoy unhurried, uncrowded golf at Lakewood, our famous course that is as scenic as it is challenging! Guests have full privileges at private golf and swim clubs on hotel grounds. Lots of free fun for all the family, too: Huge patio pool and bay beach. Fishing pier with attendant to bait your hook. Tennis (Rubico courts), shuffleboard, croquet, ping pong, lawn bowling. Playhouse and playground with junior hostess. Dancing, movies and other evening entertainment. See your Travel Agent.

SPECIAL SUMMER EUROPEAN PLAN RATES

Send for New Color Brochure

GRAND HOTEL • P.O. Box 700 • Point Clear, Ala.
Subsidiary of Southern Industries Corp.

Circle 53 on reader service card

Wilford C. Stevens
N&W

George Baylor
PRR

estate, Pittsburgh. **Robert W. Dowling,** chairman of City Investing Co., New York, continues as planning consultant for Penn Park. Coordination of engineering and real estate matters are directed by **J. Benton Jones,** vice president—engineering and real estate for the system at Philadelphia.

William H. Hardt, II, manager freight rate service—PRR system, Philadelphia, has joined the Philadelphia National Bank's Freight Bill Payment, Sales Department, as assistant manager. The bank's service, established in June 1965, makes speedy freight bill collections and payments possible for both carriers and shippers and offers the plan on a national basis through co-operating member banks.

Robert A. Deacon, assistant manager of industrial development, PRR, Chicago, appointed manager of industrial development, Baltimore, Md., succeeding **Arthur J. Hafner,** transferred to Philadelphia. Mr. Hafner replaces **Frank Hasson,** transferred to New York to succeed the late **Albert J. Rolleri.**

RICHMOND, FREDERICKSBURG & POTOMAC.—William W. Young, Sr., appointed special representative, Richmond, Va. He will have primary responsibilities in the area of "Rail-O-Gram," employee publication, in addition to assisting in all public relations activities.

ROCK ISLAND.—Carl R. Hurt, assistant to general manager, appointed superintendent, Missouri-Kansas division, Kansas City, Kans., to succeed **Joseph F. Orlomoski,** named special assistant to the general manager at Kansas City.

ROCK ISLAND MOTOR TRANSIT.—Robert P. Leonetti named director of terminals, Des Moines, Iowa.

SANTA FE.—V. V. Anderson named assistant to the general manager, Western Lines, Amarillo, Tex.

SEABOARD.—C. Edward Crutchfield, Jr., director costs and research, Richmond, Va., appointed assistant to comptroller. **Curtis L. Saunders, Jr.,** director data processing, named director data systems and research. **Everett B. Newsome,** assistant director data processing, appointed manager data processing.

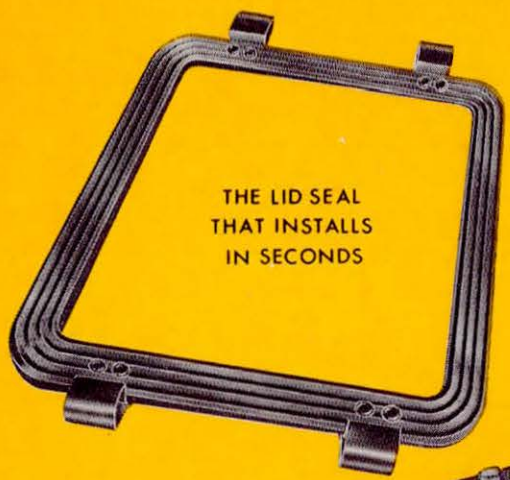
W. B. Culpeper, assistant freight traffic manager, and **I. G. Brooks,** general freight agent, both at Richmond, Va., appointed assistant general managers rates.

Clarence R. Dolby, Jr., assistant general freight agent, Raleigh, N.C., named general industrial agent, Richmond.

SOUTHERN.—Donald H. MacLeod, general manager, Eastern Lines, Atlanta, Ga., appointed senior assistant vice president — operations there. **Harold H. Hall,** superintendent, Somerset, Ky., succeeds Mr. MacLeod.

The Hennessy
Complete Package

Unsurpassed on Price... Performance... and EASE OF INSTALLATION!



THE LID SEAL THAT INSTALLS IN SECONDS

SEALWELL

F&B JOURNAL STOP

EFFECTIVELY CONTROLS JOURNAL DISPLACEMENT AT ALL IMPACT SPEEDS

OILWELL

OVERSIZE FOAM CORE AND CLOSED ENDS PROVIDE FULL CONTACT AND GENEROUS OIL FEED

GUARDWELL

EFFECTIVELY SEALS JOURNAL BOX UNDER ALL CONDITIONS

ALL FOUR **AAR APPROVED** FOR INTERCHANGE SERVICE

HENNESSY LUBRICATOR

HENNESSY LUBRICATOR CO., INC.
CHAMBERSBURG, PENNSYLVANIA

Circle 54 on reader service card

Glenn M. Sellers appointed industrial engineer, Atlanta, Ga.

Wilbur G. Cox, district freight and passenger agent, Hattiesburg, Miss., appointed assistant general freight agent, New Orleans, La. **Conley S. Boothe,** assistant general freight agent, New Orleans, named district sales manager there. **Thomas J. Young,** district freight agent, Birmingham, Ala., appointed district freight and passenger agent, Hattiesburg, Miss. **Lonnie J. Haygood** succeeds Mr. Young as district freight agent, Birmingham.

Ernest K. Ratliff, assistant superintendent, Greensboro, N.C., promoted to superintendent, Danville-Washington-Richmond Division at that point, succeeding **Leonidas H. Smith, Jr.,** appointed superintendent, St. Louis-Louisville Division, **Cincinnati, New Orleans & Texas Pacific,** Somerset, Ky. **Jack B. Hilton,** superintendent, Macon Division, Macon, Ga., transferred to the Atlanta Division, Atlanta, Ga., succeeding **Robert A. Wharton,** appointed assistant superintendent, Danville - Washington - Richmond Division, Greensboro. **William L. Hofmann,** trainmaster, Birmingham, Ala., appointed assistant superintendent, Knoxville - Memphis Division, Knoxville, Tenn., succeeding **Paul R. Rudder,** promoted to superintendent, Macon Division, succeeding Mr. Hilton.

UNION PACIFIC.—Robert H. Uhrich, division engineer, Kansas division, named construction engineer, Omaha. Mr. Uhrich's successor is **William N. Stockton,** assistant to district engineer, Northwestern district, Portland, Ore. **Hugh H. Schmidt,** office engineer, appointed structural engineer, Omaha.

Robert E. Orrick, terminal superintendent, named assistant superintendent, Kansas division, Kansas City, Kans.

Industrial Traffic

Robert J. Breitinger, traffic manager—research, **Westinghouse Electric Corp.,** Pittsburgh, Pa., has been appointed general traffic manager, succeeding the late **Charles D. Duffy, Jr.**

Robert J. Miller has been named assistant traffic manager, Refractories Division, **H. K. Porter Co.** Mr. Miller joined Porter in 1964 as traffic clerk after 12 years of railroad service.

George A. Pierce has been appointed assistant general traffic manager, **Kelly-Springfield Tire Co.,** Cumberland, Md. He was formerly traffic manager, coordination and claims division, Akron, Ohio.

Robert L. Woodhouse has been appointed supervisor of traffic, Rochester, N.Y., Division, **Friden, Inc.,** subsidiary of the Singer Co. Mr. Woodhouse was formerly assistant traffic manager, Xerox Corp.

C. M. Kittrell has been appointed vice president, supply and transportation, **Phillips Petroleum Corp.,** Bartlesville, Okla., succeeding **Harry G. Fair,** resigned. **John E. Harris** has been advanced to succeed Mr. Kittrell as manager, supply and transportation department.

George N. Lorge, shipping foreman, **PCM Division, Koehring Co.,** has been appointed traffic manager, Port Washington, Wisc.

William T. McArthur, vice president of transportation, **Pillsbury Co.,** retired April 30.

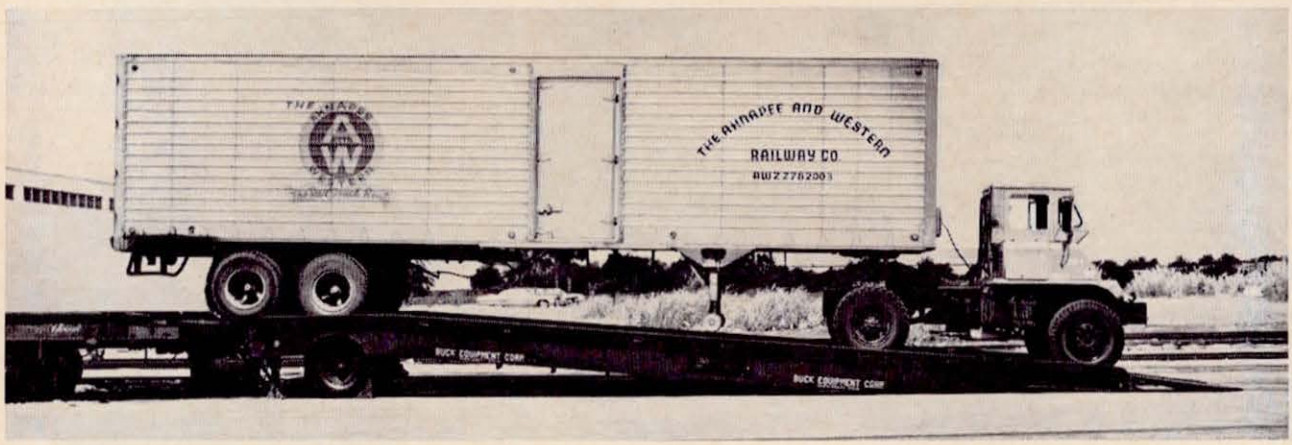
Edward J. Szwedo has been promoted to traffic manager, **Hyman-Michaels Co.** Mr. Szwedo gained his traffic and transportation experience in the rate department, **Central Territory Railroads.**

George J. Vande Noord has been named manager of industrial and transportation service, southern region, **Installation and Service Engineering Department, General Electric Co.,** Schenectady, N.Y. Mr. Vande Noord succeeds **Thomas A. Buck,** who will retire later this year. Until his retirement, Mr. Buck will conduct special studies for the department.

Donald J. Day has been appointed division traffic manager, **Durkee Foods Group, Glidden Co.,** Louisville, Ky., succeeding **Clifford J. Pilson,** who retires May 31, after 48 years with Durkee.

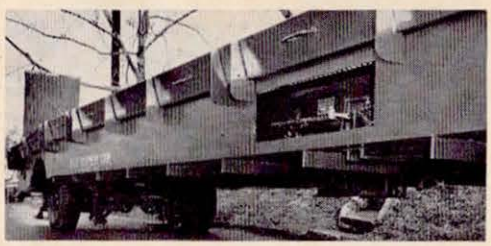
George T. Brewer, Jr., traffic manager—rates, **A. O. Smith Corp.,** has been appointed manager of a newly combined transportation rates and services department at Milwaukee. **Richard C. Cook,** general freight agent, **Chicago & North Western,** Milwaukee, named to the newly created position of manager of distribution for A. O. Smith, Milwaukee.

Robert F. Dudley has been appointed director of transportation for the newly organized division of **Continental Oil Co., AGRICO Chemical Co.,** at Memphis, Tenn. **Robert E. Forsythe** has been named assistant director of transportation; **James J. Kerr,** manager—motor carrier and air services; **Lawrence Romeo,** manager—rate research and transportation costs and **C. W. Robb,** assistant manager—rail, marine and terminal services of the newly formed Transportation Department.



Buck Portable Ramp in loading position. Below, on the road to wherever you need it.

NOW BUCK OFFERS FIVE STANDARD PIGGYBACK RAMPS



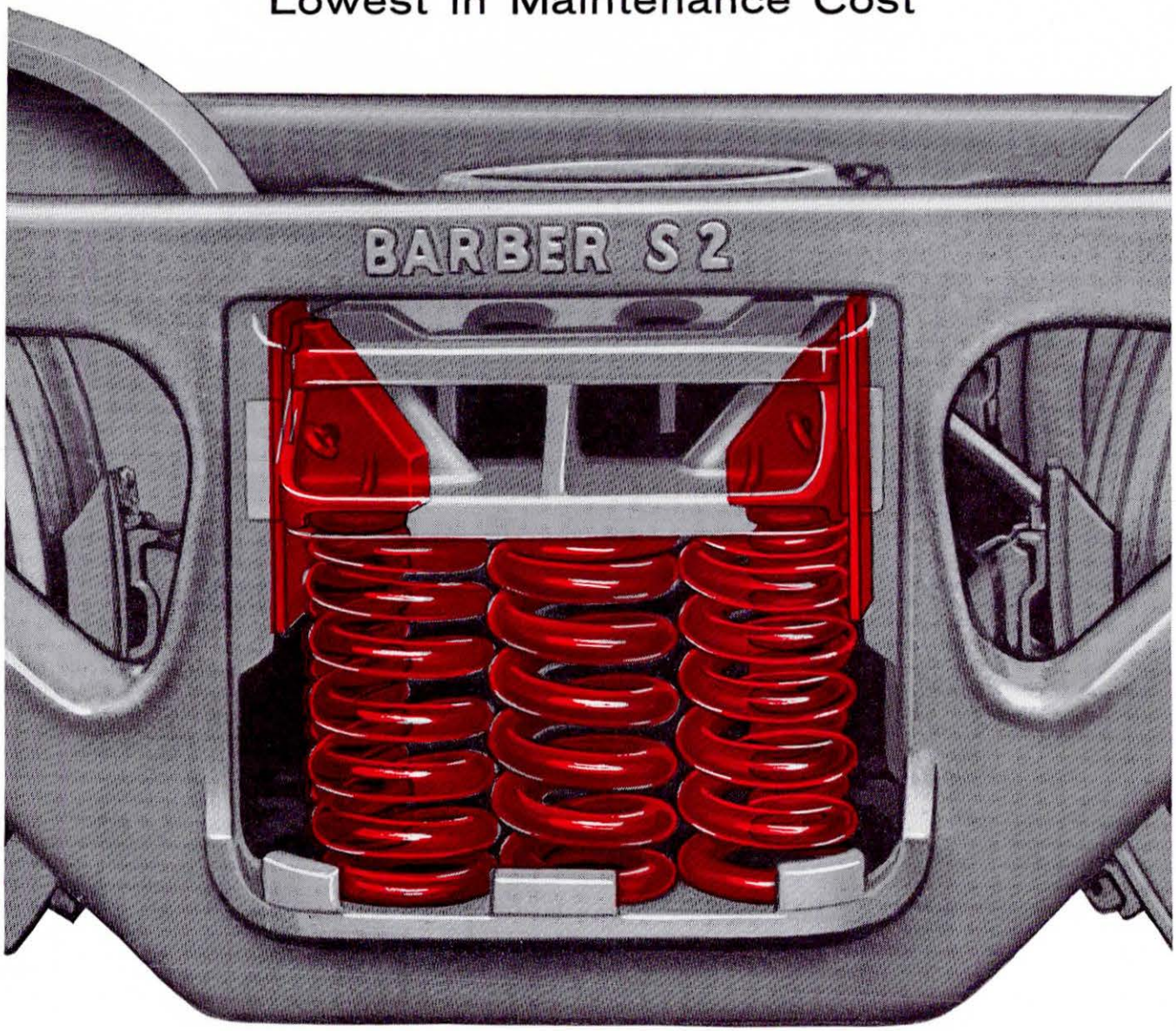
Buck has a trailer loading ramp for your express needs: Ramps for fixed loading. Ramps with lateral rail for servicing several tracks. Portable, pneumatic tire ramps with either hydraulic or mechanical fifth wheel tractor hook-up. Mechanical kingpin hitch raised and lowered by tractor. Handle trailers to 100,000 lbs. capacity, including low clearance super cargo types. Call Buck for all your auto or trailer loading requirements. First name in quality ramps for flat car or auto rack loading.

BUCK EQUIPMENT CORPORATION
A Subsidiary of Royal Industries, Inc.
720 Anderson Ferry Rd., Cincinnati, O. 45238. Tele: 513-471-8580

Circle 55 on reader service card

BARBER STABILIZED TRUCKS

Savings in First Cost
High in Quality
Lowest in Maintenance Cost



"Talk to the Man from Barber"

BARBER

Standard
CAR TRUCK COMPANY

CHICAGO • PHILADELPHIA • MONTREAL

BARBER

EXPERIENCE
RESEARCH
RESULTS

3080

Circle 57 on reader service card

Circle 58 on reader service card ►

Made by Dorsey Trailers
for Milwaukee Motor Transportation Co.

EBERHARD

HARDWARE.....
COMPLEMENTS PIGGYBACK GROWTH

and improvement patterns.....

Photo Courtesy of
Canadian Pacific Railway.

The expansive, constant evolution of PIGGYBACKING with its changing highway and rail carrier concepts has brought EBERHARD and its HARDWARE PRODUCTS sharply into focus.

Piggyback service demands for multiple strength points and product durability under extenuating conditions of rugged service are being satisfactorily met and consistently complied with.

This was not accomplished, however, without brief periods of frustrating challenges in attaining the highest degree of operational "on the job" performance always requisite with Ⓔ HARDWARE.

Eberhard's long established policy of "Besting by Testing" is carried out in all phases of design and application proving.

We regret we are able to present here only a very few of the commendable examples of "top notch" Piggyback Trailers, "EBERHARDWARED" and built to the exacting requirements of railroads and other operating or leasing customers.

Photo Courtesy of
Santa Fe Railway.

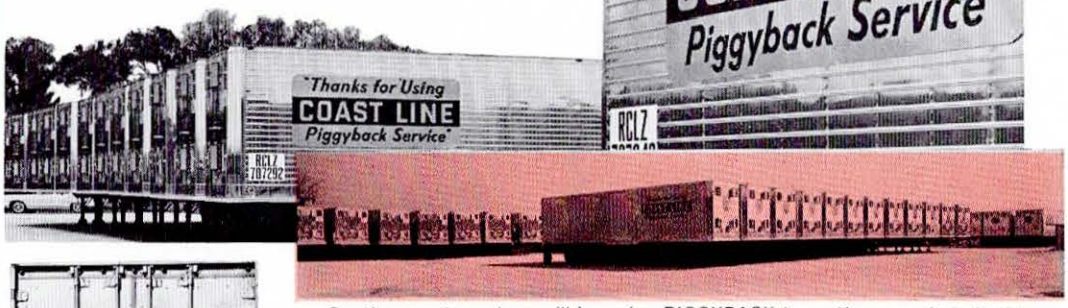
Made by Kentucky Manufacturing Co.
for B & O Trailer Service.

Made by Great Dane Trailers, Inc. for Trailer Rail Service.

Made by Enterprise-Black Diamond Corporation for Grand Trunk Western Railroad.

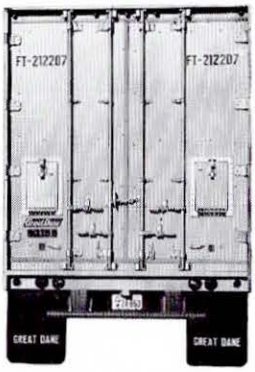
Made by Miller Trailers, Inc. for Coast Line Piggyback Service.

1000 trailers for piggyback service ordered by R. E. A. leasing corporation...



Southern watermelons will be going PIGGYBACK to northern markets in this new trailer fleet ordered for ATLANTIC COASTLINE RAILROAD.

They were quality built by MILLER TRAILERS, INC. for Railway Express Agency Leasing Company.



Rear view of a modern PIGGYBACK TRAILER. Here the manufacturer has used hardware to the greatest advantage in assuring longevity of service life under the roughest of operating conditions.

Photo Courtesy of Great Dane Trailers, Inc.

NEW "POZ-E-GRIP" LOCK *with Anti-Rack feature and Safety Latch*

The product of extensive investigation, research and lock breakage analysis, our NEW POZ-E-GRIP LOCK nullifies the destructive reverse-leverage-action so detrimental in many instances of conventional lock design failure.

The patented Safety Latch distributes stress evenly over two positive holding points, affording extra strength where most needed. It helps eliminate the possibility of door lock breakage under the severest conditions of Highway or Piggyback operation.

Avail yourself of all the pertinent facts and specifications on this new needed lock. Write for details or consult your Eberhard Sales Representative.

Made by Dorsey Trailers for Norfolk and Western.

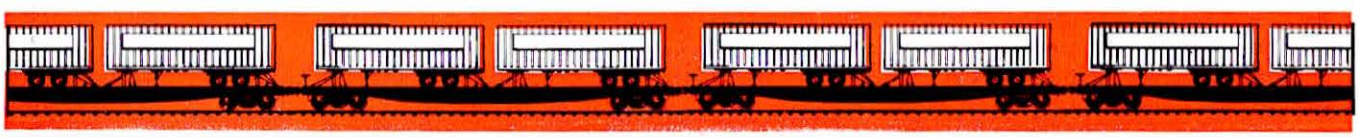
Made by Theurer, Incorporated, for Erie Lackawanna Piggyback Service.

Made by Kentucky Manufacturing Co. for L & N Piggyback.

EBERHARD MFG. CO.

DIVISION OF THE EASTERN COMPANY

2734 TENNYSON ROAD
CLEVELAND, OHIO 44104



LOCKS AND HARDWARE FOR THE TRANSPORTATION INDUSTRY

All appliances designed and engineered by WINE . . . manufactured in the U.S.A. and Canada by UNITCAST.
THREE SURE WAYS TO STOP LADING LOSS

Patented

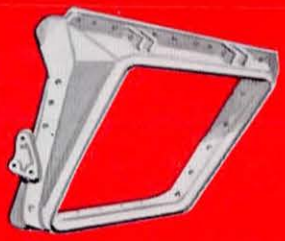
Over 115 Domestic and Foreign Railroads prove superiority of WINE cast steel hopper frames, locks, hinges!

Wine-equipped hopper cars *consistently* deliver *all* the payload.

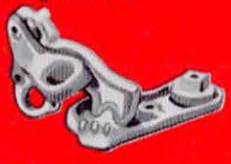
The structurally sound Frames, Locks and Hinges work as a team to provide total 3-way protection. And they keep on protecting lading, earning profit, long after other appliances have worn out.

No matter what you pay, Wine appliances are *the finest any money can buy!* Engineering and purchasing management can rely 100% on Wine for unmatched product performance *plus* competitive pricing and reliable delivery schedules.

To save purchasing dollars, to stop lading loss and to practically end maintenance upkeep, START SPECIFYING WINE . . . a start-to-finish appliance designer-manufacturer. Call your local Wine sales representative or write the factory today for complete details, including product specifications.



WINE FRAMES Rigid, non-distorting one-piece precision steel castings that fit tight for life.



WINE LOCKS Fully adjustable for easy installation. Made to operate easier, last for life of car and then some!

WINE HINGES Single steel castings with hinge lugs built into frame for permanent alignment, bind-free operation.

PRODUCER OF OVER FIFTEEN *THOUGHTFULLY ENGINEERED* QUALITY APPLIANCES *PLUS* CUSTOM CASTINGS BY UNITCAST

THE WINE RAILWAY APPLIANCE CO.

DIVISION OF UNITCAST CORPORATION • TOLEDO, OHIO 43609

Canadian Manufacturing Division: *Canadian Unitcast, Ltd.*, Sherbrooke

Sales and Service: *The Holden Co., Ltd.*, 614 St. James St., W., Montreal

Circle 59 on reader service card

Computerized rates are called essential

'Complex and baffling questions involved' in coping with the present rate structure are aired at a meeting in Pittsburgh.

Round three of the *computers versus rate structure* event came off at a Pittsburgh meeting May 24-27 with no knockdowns, few punches and little evidence as to how soon the fight will finish. There was one big plus, though. None of the participants was calling off the bout and ringside observers were counting on a decision for the computers.

● **Quick victory wanted.** Everyone agreed it would be nice if the computers could score a quick victory over the old champion demon, the railroads' nightmarish rate structure. Many publicly declared such a victory essential to continued transportation progress.

A. Scheffer Lang, deputy undersecretary for transportation (R&D), U.S. Department of Commerce, was there to tell hundreds of participants why "automatic processing of rates is a must for everyone." Speakers and participants from railroads, truckers, airlines, universities, government, shippers and industry associations added much urgency to Lang's point. Few, if any of them, saw a quick solution ahead.

The meeting, third in a series of annual conferences sponsored by the Ohio Chapter, Transportation Research Forum, was also participated in by the Traffic Club of Pittsburgh and the University of Pittsburgh.

● **No small figures.** The joint sponsorship, said a conference committee, was to provide an opportunity "to embrace properly a discussion of the many complex and vexing questions involved in coping with a rate structure said to include somewhere between 43 trillion and 1.4 septillion factors." It was enough to make even the computer experts blink and swallow as they gingerly reported progress since the first tariff computerization conference was held at Columbus, Ohio in 1964.

There was progress. Format developments and practical problems encountered in the development and implementation of the codes necessary before computerized order can be imposed upon the rate structure were about it, insofar as the conference's theme went. There were, however, progress reports on simulation, computer innovation in product-distribution systems, and other subjects of interest to the computer-oriented participants.

● **First things first.** Robert A. Blocki, assistant general traffic manager of Kraft Foods, questioned developing attitudes among people working on the problem of computerized rates. Some experts, he pointed out, feel that the inherent difficulties of computerization of existing rate structures should be overcome "by changing the structure rather than the hardware or the programming."

Changing the input to fit the machine, Blocki noted, was much like having the tail wag the dog. Notwithstanding the legal difficulties in complying with the fourth section of the Interstate Commerce Act (as to intermediate application of rates at origin and destination, aggregates of intermediate rates and rule 56 application generally), Blocki felt large-capacity computers and properly programmed rates on "a simplified basis, often by reducing them to a formula," make the task possible.

"Despite the impact of ex parte increases," he said, "the basic formula for the 28300 class rate scales should be a relatively simple matter for the programmers and hardware of today. Complex relationships such as those which covered rail grain rates may very well yield to mathematical genius. If the railroads could maintain the myriad market relationships on grain through the maze of general increases following World War II, a machine capable of instantaneous calculations can certainly be instructed in the process.

"On class rates, exceptions rates, commodity rate columns and commodity rate structures programmed to maintain specific relationships it would appear probable that the computer can be programmed to check rates without any need to do violence to the traditional rate structures or rate levels."

● **What about tailored rates?** Blocki then turned to the rates that are tempting computer experts to fiddle with input as they try to computerize rates. "The problem for the rate man is in the great number of commodity rates individually established over the years to meet specific problems of the shippers, the carriers or both. These cannot be reduced to formulas simply because they were individually tailored to meet individual problems.

"Many such rates account for the movement of large volumes of traffic. Their level is of great importance to shippers and carriers. Generally, they are fiercely competitive. Sometimes they are carefully restricted to keep their application in the channels for which they were designed and prevent wasteful dissipation of revenues."

This type of rate, noted Blocki, can be put into computers as individual items in rate statement fashion. But, interrelated rates may also defy formulas. Traditional relationships of transcontinental rate groups are marked by exceptions as much as by rule.

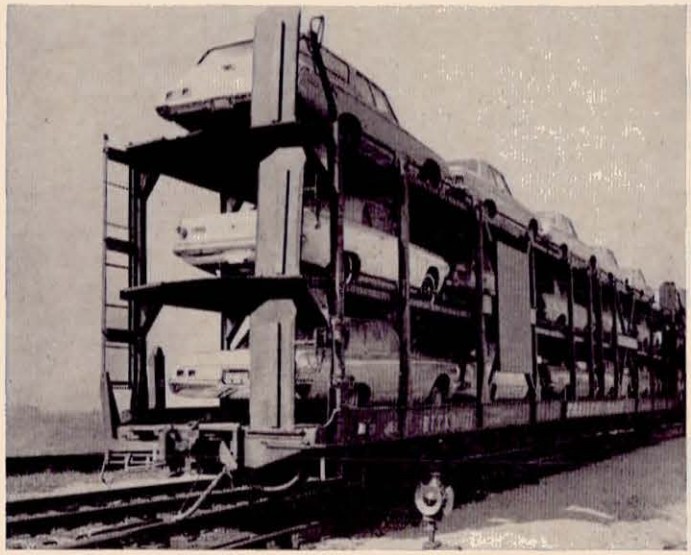
● **Caution is required.** Blocki warned the experts at the conference that, while computerization of even such rates as those he described can be accomplished, the process should not interfere with the "sensitive application of rates themselves."

He summed up the problem: "The efficiency and desirability of the computerization process may greatly enhance the use of the pricing feature, but it is still only a useful adjunct to the real purpose of a rate—to move traffic. To carry out a somewhat clumsy simile, computerization is a beautiful tail on our dog of a rate structure. We must not become so lost in admiration of the beauty of the tail as to forget that it is the dog that is the real necessity."

● **Codes are coming.** A basic need for progress in rate computerization, standard codes, was the subject of a presentation by D. E. Church, chief, transportation division of the Bureau of Commerce, USDC. Church, who had a hand in the development of the standard transportation commodity code and the standard point location code, is a member of the government task force to develop a standard geographic code. He recommended suspension of the effort to develop a single detailed operating code in favor of early action toward development of a "master interchange standard" that could serve as a common language between diverse subject-matter fields such as between "transportation and demographic applications."

● **Competition forces action.** James M. Souby, Jr., chairman and counsel, executive committee, Western Railroad Traffic Association, reported progress by the joint railroad tariff computerization committee. He noted that the committee's efforts had been initially directed primarily toward the possibility that

Why do FreightMasters work so much better on TTX cars than they do on boxcars?



They don't.

FreightMasters can be found on thousands of boxcars, gondolas, bulkhead flats, and many other types of cars.

But the thousands of TTX cars that carry the built-in protection of FreightMaster hydraulic end-of-car cushioning systems make Trailer Train our largest single customer by far.

FreightMasters bring these same benefits to boxcar owners:

They work.

They never need addition of hydraulic fluid or periodic checking of hydraulic gauges.

They mount in each end of the car, so camber problems are eliminated.

They help protect car structures *including the center sill*, as well as lading.

They help protect adjoining cars because FreightMasters work independent of one another in each end of the car.

They are built by the largest non-proprietary manufacturer of cushioning systems in the country.

They add thousands of pounds to a car's revenue capacity because FreightMaster installation can be accomplished without heavy dual sills and massive cover plates.

They are backed by a staff of service personnel who are almost as fast as they are friendly.

There's more to the FreightMaster story. May we tell it to you?

FreightMaster is a Division of Halliburton Company, 424 West Vickery Boulevard, Fort Worth, Texas 76101. Telephone — AC 817-ED 5-3046. In Canada, contact Hawker Siddeley Canada Ltd., Montreal. In Mexico, contact ARMENDARIZ S. de R. L. de C. V., Marconi Numero 2-37, Mexico 1, D.F.

FreightMaster®

DIVISION OF HALLIBURTON COMPANY

END-OF-CAR HIGH-CAPACITY HYDRAULIC CUSHIONING SYSTEMS

Circle 36 on reader service card

tariffs are susceptible to compilation, publication and reissue by computer.

"There can be little doubt the answer is affirmative," Souby said. "But we want to know whether any significant changes in format are necessary and we also want to know the relative costs of our present manual publication as compared with the cost of computerized publication.

"We initially were strongly of the view that we had to have significant economic benefits over and beyond simplified compilation and publication in order to justify a shift from the present tariff system to computerized tariffs."

WRTA's committee feels there are substantial economies to be secured from using computers "solely for publication purposes, even if the industry never accomplishes ultimate storing of tariffs in a library so they can be retrieved at will."

• **Code progress cited.** The rate computerization committee also feels carriers must determine and agree upon a sequential order of commodity description, item numbers, rates, routes, notes and other references to achieve necessary uniformity, said Souby.

Two of the required codes—the Standard Transportation Commodity Code and the Standard Point Location Code for North America—have been completed. ■

Sperry shows off new test car, rail stand

Transportation and nondestructive testing experts—some 90 of them—gathered in Danbury, Conn. last week to look at Car 140, the newest rail inspection car to be developed by Sperry Rail Service Division of Automation Industries, Inc.

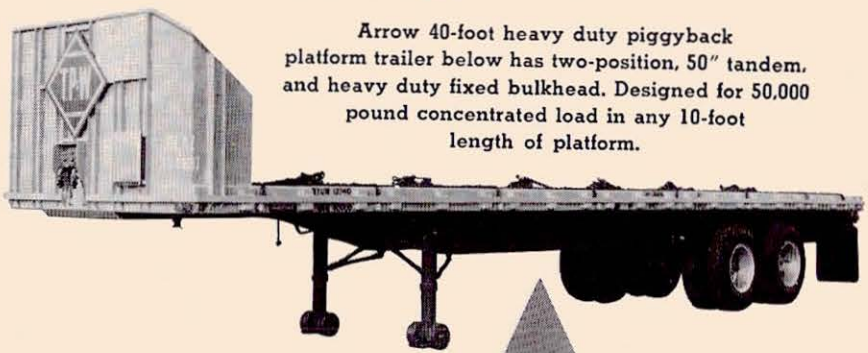
The new induction-ultrasonic car (RA, May 9, p. 20) was developed at a cost of $300,000. It incorporates a number of firsts, many of which will be included in Sperry's test fleet of rail cars. A light-weight car, it has an electronic data processing system to minimize human error in detecting rail trouble spots. It was designed to meet clearance requirements of all North American rail systems, subways and transit systems, and also to meet the loading gauge requirements of European railroads and most other world railways.

Sperry also demonstrated a rail test stand for ultrasonically testing new and used out-of-track rails weighing 80 to 140 pounds per yard. The system can be used in reclaiming yards, weld sites, steel mills and other locations where out-of-track rails are assembled. ■

REALCO concentrates the load on Arrow!

Arrow piggyback platform trailers are designed for a 50,000 pound concentrated load in any 10-foot length of platform. That's just one of the reasons REA Leasing Corporation uses Arrow piggyback trailers for shipments via such railroads as Toledo, Peoria and Western . . . and Norfolk and Western. Arrow provides efficient use of high capacity materials, longer useful life, greater payloads, and less empty weight for more profitable hauling.

This Arrow 40-foot heavy duty piggyback platform trailer with 10'1" spread tandem has heavy duty fixed steel bulkhead. Designed for 50,000 pound concentrated load in any 10-foot length of platform.



Arrow 40-foot heavy duty piggyback platform trailer below has two-position, 50" tandem, and heavy duty fixed bulkhead. Designed for 50,000 pound concentrated load in any 10-foot length of platform.

Arrow has the capacity to meet special requirements for any piggyback trailer.

ARROW EQUIPMENT CO., INC.

1095 Harbor Ave. • Presidents Island • P. O. Box 2682 • Memphis, Tenn. • Ph. 948-5581

Circle 61 on reader service card

LETTERS FROM READERS

Washington please note

Wilmette, Ill.

To the Editor:

Your issue on railroad research (April 18) is certainly good and was much needed. I only hope the "influentials" in Washington, especially, will read the recorded facts and take some much needed action.

J. Benton Schaub

Pity the Pittsburgher

Pittsburgh

To the Editor:

I was very interested in your interview with Mr. John Gilhooley, of the New York City Transit Authority, appearing in the May 2 issue.

I note that you mention on page 16 the New York City fare of 15 cents in comparison with the 25 cent fare in Pittsburgh . . . I am a resident of Pitsburgh and the bus fare has been 30 cents for some time and the trolley fare before we switched to buses was 30 cents. The Bellevue/Avalon bus ride which runs about 6 to 10 miles is 35 cents. There are special monthly passes which save the rider 50 cents a month, but our transportation is no bargain.

I guess this is a touchy subject with most of us who have to depend on public transportation to get back and forth to work.

Janet S. Walsh

The R&D issue

New York City

To the Editor:

Your April 18 issue of Railway Age (devoted to railroad research) was outstanding. It should go a long way toward "educating" elected representatives, businessmen, and members of the press, radio and television organizations who seem to have had little knowledge of railroading's accomplishments.

Malcolm Patterson

Dividends Declared

ATLANTIC COAST LINE.—75¢ quarterly, payable June 13 to holders of record May 4.

CHESAPEAKE & OHIO.—$1, quarterly, payable June 20 to holders of record June 1.

CHICAGO GREAT WESTERN.—Preferred, 62½¢, quarterly, payable June 30 to holders of record June 15.

CLEVELAND & PITTSBURGH.—7% Guaranteed, 87½¢, quarterly; 4% guaranteed, 50¢, quarterly, both payable June 1 to holders of record May 10.

DENVER & RIO GRANDE WESTERN.—27½¢, quarterly, payable June 13 to holders of record June 3.

ERIE & PITTSBURGH.—Guaranteed stock, 87½¢, quarterly, payable June 10 to holders of record May 31.

GREAT NORTHERN.—75¢, quarterly, payable Aug. 1 to holders of record July 15.

GULF, MOBILE & OHIO.—55¢ quarterly, payable June 13 to holders of record May 25; Preferred, $1.25, quarterly, payable Dec. 12 to holders of record Nov. 23.

LOUISVILLE & NASHVILLE.—$1, quarterly, payable June 13 to holders of record May 6.

MISSOURI PACIFIC.—Class A, $1.25, quarterly, payable June 30 to holders of record June 17.

NORFOLK & WESTERN.—$1.50, quarterly, payable June 10 to holders of record May 12.

PENNSYLVANIA.—40¢, quarterly, payable June 21 to holders of record May 23.

PITTSBURGH & WEST VIRGINIA.—4¢, monthly, payable May 31 and July 29 to holders of record May 13 and July 15, respectively; 5¢, monthly, payable June 30 and Aug. 31 to holders of record June 15 and Aug. 15, respectively.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7%, $1.75, quarterly, payable June 1 to holders of record May 20.

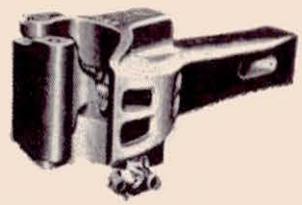
ST. LOUIS-SAN FRANCISCO.—50¢, quarterly, payable June 15 to holders of record June 1; Preferred, $1.25, quarterly, payable June 15 to holders of record June 1.

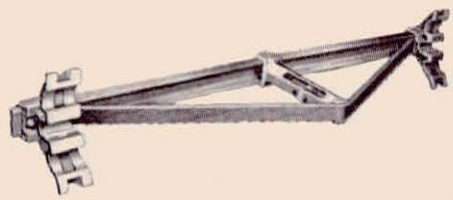
SOUTHERN.—70¢, quarterly, payable June 15 to holders of record May 13.

SOUTHERN PACIFIC.—37½¢, quarterly, payable June 20 to holders of record May 31.

Thi$ $crabble Will $ave you Dollar$

CO**M**PRESSION TESTED TRUCK SPRINGS
CERT**I**FIED, REBUILT POWER BRAKES, AAR APPROVED
SAN**D**BLASTED SIDE FRAMES AND BOLSTERS
COUP**L**ERS, TYPE "E" 60, 61 and 63
A**A**R APPROVED CAST STEEL YOKES
K**N**UCKLES, ALSO ALL OTHER COUPLER PARTS
DRAFT GEARS, ALL TYPES (MINER, WESTINGHOUSE, ETC.)
REPAIR ALL TYPES RR FREIGHT CARS
EXCELLENT SERVICE AND PROMPT DELIVERY
CAR PARTS SECOND HAND FOR FREIGHT CARS
LOWEST PRICES
ALL PARTS ARE UNCONDITIONALLY GUARANTEED
MODERN SHOP FACILITIES
AIR HOSE, REBUILT WITH NEW HOSE AND TESTED FITTINGS
TESTED ANGLE COCKS AND DIRT COLLECTORS
INSPECTED REGULARLY BY THE AAR
OVEN PYROMETER CONTROLLED
NO ORDERS TOO SMALL OR TOO LARGE





Complete stock lists available quarterly or as requested
Write — phone — or wire

Midland Reclamation Company

5841 Hamilton Avenue, St. Louis, Missouri 63136 • Area code 314 — EV 3-6200

Circle 62 on reader service card

MARKET OUTLOOK

Carloadings

Loadings of revenue freight in the week ended May 21 totaled 609,325 cars, the Association of American Railroads announced on May 26. This was a decrease of 1,836 cars, or 0.3%, compared with the previous week; an increase of 10,647 cars, or 1.8%, compared with the corresponding week last year; and an increase of 29,344 cars, or 5.1%, compared with the equivalent 1964 week. Ton-miles generated by carloadings in the week ended May 21 are estimated at 15.0 billion, an increase of 7% above the corresponding week of 1965, and 15% above the 1964 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, May 21

District	1966	1965	1964
Eastern, including Allegheny and Pocahontas ..	247,085	244,308	237,576
Southern	116,006	119,712	113,519
Total Eastern and Southern Districts	363,091	364,020	351,095
Northwestern .	91,365	81,799	82,746
Central Western	115,657	113,535	109,061
Southwestern .	39,212	39,324	37,079
Total Western Districts	246,234	234,658	228,886
Total All Roads	609,325	598,678	579,981
Commodities:			
Grain and Grain products	53,322	44,690	38,015
Livestock	1,727	1,720	2,266
Coal	117,356	113,014	109,924
Coke	8,874	8,514	8,130
Forest Products	40,133	39,502	38,858
Ore	57,781	52,356	57,669
Merchandise l.c.l.	5,947	9,600	12,823
Miscellaneous .	324,185	329,282	312,296
May 21	609,325	598,678	579,981
May 14	611,161	593,858	576,342
May 7	602,244	591,181	566,330
April 30	574,093	592,982	553,142
April 23	543,639	570,489	558,647
Cumulative total, 20 weeks ...	11,040,057	10,914,674	10,627,757
Estimated revenue ton-miles (billions) 20 weeks ...	277.1	258.1	247.6

PIGGYBACK CARLOADINGS.—U.S. piggyback loadings for the week ended May 14 totaled 22,413 cars, carrying 36,610 trailers, compared with 20,303 cars, carrying 32,560 trailers, in the corresponding 1965 period. Loadings for 1966 up to May 14 totaled 403,539 cars, carrying 666,669 trailers, compared with 364,018 cars, carrying 585,865 trailers, in the corresponding period of 1965.

IN CANADA—Carloadings for the seven-day period ended May 7 totaled 86,362 cars, compared with 102,262 for the previous nine-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
May 7, 1966	86,362	26,853
May 7, 1965	76,769	25,887
Cumulative Totals		
May 7, 1966	1,362,887	469,456
May 7, 1965	1,256,048	441,460

FREIGHT-TRAIN CARS

► *Gulf, Mobile & Ohio.*—Ordered 300 box cars equipped with cushion underframes from Pullman-Standard at a cost of approximately $4.5 million.

► *Louisville & Nashville.*—Directors authorized acquisition of 950 new freight cars and rebuilding of 1,000 cars at a total cost of approximately $16.6 million. L&N will acquire 700 high-side gondolas, 200 70-ton wood-rack cars and 50 100-ton wood-chip cars. South Louisville, Ky., company shops will rebuild 600 40½-ft plain box cars and 400 50-ton gondolas.

► *Southern.*—Ordered 800 new 100-ton hopper-bottom coal cars at a cost of $13 million from Pullman-Standard. The new high-capacity cars will have six hoppers with steeper-than-ordinary inside slopes for fast and complete unloading of coal. Deliveries are scheduled during August and September. Thus far this year, Southern has ordered a total of 2,237 freight cars of various types and 841 piggyback units at a cost of $42 million.

► *Orders increase.*—Orders for new freight cars in April totaled 12,213, compared with 11,260 in March, and 5,490 in April 1965. Deliveries of new freight cars totaled 7,262 in April, compared with 8,054 in March, and 6,530 in April 1965. Backlog of cars on order and undelivered on May 1 showed 14,433 on order in railroad shops, and 44,982 in the shops of contract car builders, for a total of 59,415. This compared with 54,541 on order on April 1, and 35,774 on order May 1, 1965. As of May 1, a total of 9,955 cars were scheduled for rebuilding, compared with 10,490 on April 1, and 7,692 on May 1, 1965.

PIGGYBACK

► *Canadian National.*—Ordered 492 road-rail containers from Steadman Industries Ltd. The aluminum units—which will be 20 feet long, eight feet high, and eight feet wide—will have a door on each side and double doors at one end. They will be insulated and have built-in heating devices. The containers will ride on specially designed 62-ft flat cars. CN has 200 of these cars on order with delivery scheduled to begin in August, coincidentally with delivery of the containers. CN has also ordered 105 road vehicles for use in the service.

LOCOMOTIVES

► *Gulf, Mobile & Ohio.*—Ordered nine 3,000-hp diesel-electric units from EMD at a cost of approximately $2,250,000.

► *Louisville & Nashville.*—Will acquire 25 new diesel-electric units at a cost of more than $5 million, with deliveries scheduled for autumn 1966. L&N has ordered 10 2,000-hp Century 420 units from Alco; 10 3,000-hp GP40 units from EMD; and five 2,800-hp U28B units from GE.

PASSENGER CARS

► *Cleveland Transit System.*—Is seeking bids for 20 or 22 new transit cars at an estimated cost of $21 million. Bids are being sought on the basis of either aluminum or stainless steel construction. Cars will be 70-ft, have 80-passenger capacity, and be equipped with 100-hp motors. The new cars are for the airport extension line due to be in operation by the fall of 1967.

YOU OUGHT TO KNOW

The per diem bill becomes law: President Johnson signed the incentive per diem bill into law at a White House ceremony May 26. Among those on hand were representatives of shippers groups and railroad officers. The new law permits the ICC, after Sept. 1, to include incentive factors in per diem rates for rental of freight cars by railroads (RA, May 23, p. 38).

More time for pleading in Northerns case: The ICC has set back to June 27 the deadline for filing requests for reconsideration of its adverse decision on the Great Northern-Northern Pacific-Burlington merger proposal (RA, May 2, p. 27). The additional time was sought by those railroads.

Washington sees US Steel show: The United States Steel Corp. went to Washington last week to show what it's doing to help transit officials solve their problems. The presentation was previously shown in other cities, including New York and Pittsburgh. It consists of color slide demonstrations, exhibits and models of transit system components.

Railroads fined $64,500: Fines totaling $64,500 were paid in April by 40 railroads for violations of the Safety Appliance, Hours of Service and Explosives and Combustibles acts. Biggest payers, according to the ICC, were: Frisco, $7,250, and Seaboard Air Line, $5,500.

New trailer rental company formed: Transport Pool, Inc., a newly-formed company that will rent highway trailers, plans to spend $5 million this year for new trailers. The new company, based in Los Angeles, has established branches in the New York area, Chicago, Los Angeles, Philadelphia, Denver, and Charlotte, N.C. The company is headed by William Sennett, who was formerly with Rentco, a division of Fruehauf.

Technical terms with a French twist: A terminology section to be known as "Linguistic Services" is being added to the Canadian National's translation bureau. The road's aim is to step up efforts to develop a comprehensive business and technical railway terminology in the French language adapted to North American conditions. The new department will gather material and make it available to employees and customers of the railroad. Frederic Phaneuf, special assistant to the vice president, St. Lawrence region, will head the operation.

BAR's diamond jubilee is rolling: Thousands of Maine residents are turning out to greet and inspect the Bangor & Aroostook's 75th Anniversary Special—a train exhibiting the railroad's story through the years. The train will tour the state through June 7.

New food service on NYC: New York Central has completely refurbished a passenger coach to create a coach-buffet car for serving inexpensive hot meals. The car is in service on an experimental basis between New York City and Buffalo. It seats 60 passengers and has a 14½-foot serving area where hot meals, sandwiches and other refreshments, including alcoholic beverages, can be bought at moderate prices. An attendant is on duty to serve passengers, who can eat at their seats or at a serving area in the car. A typical low-cost meal: chopped sirloin of beef, vegetables and potatoes—all for $1.00.

Railroad safety report: No passengers were killed in train or train-service accidents in March, according to the ICC's Bureau of Railroad Safety and Service. Thirty persons were injured during the month in train accidents, and 74 were hurt in train-service mishaps. In March 1965, there were no deaths due to train accidents, but 7 persons were injured; in train-service accidents, one person died and 107 were injured. Sixteen employees were killed and 1,424 were injured in March, compared to 13 killed and 1,560 injured in March 1965.

Truck tonnage: Intercity truck tonnage in the week ended May 14 was 0.8% below that of the previous week of this year, and 6.6% ahead of the volume in the corresponding week of 1965, according to American Trucking Associations.

Current statistics

Net income	
3 mos., 1966	$172,000,000
3 mos., 1965	123,000,000
Carloadings, revenue freight	
20 wks., 1966	11,040,057
20 wks., 1965	10,914,674
Freight cars on order	
May 1, 1966	59,415
May 1, 1965	35,774
Freight cars delivered	
4 mos., 1966	29,303
4 mos., 1965	26,138
Serviceable cars	
Apr. 1, 1966	1,406,470
Apr. 1, 1965	1,401,170

PRR's Kearny yard keeps trailers rolling along

The Pennsylvania's TrucTrain terminal at Kearny, N.J. is said to be the world's busiest piggyback terminal —and it's getting bigger all the time.

The terminal has just gone through its third revamping since it was originally opened in 1955. As it stands now, it handles 11,000 trailers per month, operating 24 hours a day, seven days a week.

A number of the big improvements got under way last summer (RA, Aug. 23, 1965, p.18). Among these are:

—A new air-conditioned office building, which houses all aspects of inbound delivery, accounting, outbound billing, trailer and car control, and information services.

—A new gate house, equipped with up-to-date electronic devices. The equipment will make possible the checkout of six trailers simultaneously.

Two more cranes

Two heavy-duty rail-mounted cranes have been added to the already existing rubber-mounted crane, to speed loading and unloading of trailers. Loads are grounded by the cranes at a 15-degree angle to insure immediate availability to tractors.

● **Circus loading.** A revised track layout provides 10 tracks for circus-type loading and unloading. There are three tracks equipped for crane operation; these tracks can hold up to 70 of the 89-ft flat cars moving through the yard.

A reversible ramp is located in the yard, enabling personnel to unload trailers from either end of the track. Additional parking facilities for trailers brings the total capacity of the yard to 1,000 trailers.

A greater area has been black-topped to speed the movement of trailers in and out of the terminal. An improved lighting system will greatly speed night operations.

Talk-back telephones have been spotted at all strategic yard locations. All such phones are connected with the main yard office.

Systems approach

New equipment in the office building will also make a difference: Flexowriters give terminals advance consists of trains to expedite terminal handling; pneumatic tubes send information to gate houses; weighing of trailers is a remote-control operation from the building.

"These improvements will enable us to load and unload more trailers while maintaining our present closing and placement times for our high-speed TrucTrains," said H. W. Large, vice president, traffic.

Looking to a more coordinated operation with the Pennsy's new merger partner, Large said: "This revamping will enable the yard to handle efficiently today's volume—and the increased business the merger with the New York Central will bring."

The Kearny yard is now receiving and dispatching 60-mph solid piggyback trains to and from Chicago, St. Louis, Detroit, points beyond Potomac yard, and any other of the road's 34 piggyback terminals. Early second morning deliveries are the standard between Kearny and Chicago, and between Kearny and St. Louis. ■

MFG PIONEERS OF MATCHED METAL DIE MOLDED FIBER GLASS LINER PANELS.

Airflow

the *different* LINER PANEL

by MFG

Working with the industry, MFG presents the Air Flow Liner Panels that combine the best features of thermal liner panels — all in one! Save precious inches of cargo space, improved air flow for better protection of refrigerated loads, for increased profits.

Engineered, field tested, and proven on more than 2500 vehicles.

Completely different! New spec sheet available! Write today!

Molded Fiber Glass Body Company
TRANSPORTATION DIVISION
4671 BENEFIT AVENUE • ASHTABULA, OHIO 44004 • 216:993-2171

Tri-State comes up with transport plan

Highways get the lion's share of spending under the proposed 20-year plan for the New York region—but rails get some, too.

Rail transit, commuter lines, highways —the New York metropolitan area needs more of everything. The Tri-State Transportation Commission has come up with a plan to show how to bring them to reality.

The interstate planning agency submitted an interim report to the governors of New York, Connecticut and New Jersey which drew up the outlines of a $10-billion 20-year plan for the region. Included in the plan are proposals to spend up to $3 billion for rail transit and commuter line extensions and improvements, and $7 billion to extend highways.

The Tri-State report departs sharply from the line taken in previous reports issued by the Regional Plan Association and the New York City Planning Commission. The other two organizations had called for giving priority to public transportation, particularly rapid transit, and downgrading of priorities for new highways.

City Planning Commission Chairman William Ballard, who also functions as secretary and one of the commissioners of Tri-State, took exception to some aspects of the latter's new plan. He expressed reservations about construction of new highways within New York City, and called for substantial review and study before design and construction can be concurred in by the City.

● **Not the last word.** Tri-State in releasing the report, stressed its interim nature. Officials said that it represents the best way of dealing with the region's foreseeable transportation needs, but is subject to approval by the three states, and periodic adjustment at later intervals.

What's in the Tri-State proposal? The plan calls for expenditure of $820 million for improvements to the commuter rail lines. The $200 million modernization program for the LIRR being carried out by the Metropolitan Commuter Transportation Authority under the sponsorship of the State of New York gets endorsed (see RA, April 11, p. 25).

In Westchester, Putnam and Dutchess counties, extension of electrification is proposed for 66 miles on the New York Central's Hudson Division from Croton to Poughkeepsie, and on the Harlem Division from North White Plains to Brewster.

In Connecticut, the report proposes reactivating electrification on the South Norwalk-Danbury branch. The report notes hopefully the progress made in getting commitments from the public sector in New York and Connecticut for some improvements already, in addition to tax relief.

● **More commuter help.** But the report goes on to state that more is needed. It puts a $120 million price tag on an upgrading program for NYC and NH commuter services, saying that in the future, electrification will have to be emphasized, only modern m-u cars should be operated into Grand Central Station, and another 200 of these cars should be acquired. Other recommendations that dovetail with this include construction of more high-level platforms, improved station facilities, signal and power supply improvements.

On the New Jersey side of the Hudson River, the Tri-State report finds commuter operations more complicated. Few of the lines operate directly into Manhattan, some are mutually incompatible in equipment and dispersed over a wide area, and almost all need sweeping modernization.

● **Electric or turbine?** The report recommends putting $200 million into upgrading and consolidation, with about half spent on new equipment, and half on track and station improvements. Lines not yet electrified should be so, although gas turbine propulsion should be studied as a possible alternative.

New cars should be self-powered, high-level platforms should be built, automated fare collection installed. All major services should be better linked with each other and with the present tunnels under the Hudson, so that direct service into Manhattan can be effected.

● **Sliding transit scale.** In the case of transit, solutions depend on a number of variables. Tri-State elected to list these variables and peg the ultimate cost on a sliding scale between $2.3 and $3 billion, over the next two decades.

The report acknowledges that over $1 billion has been poured into capital improvements of the New York City transit system in the last 12 years, but stresses that much more remains to be done—above all to relieve the congestion on the IND line into Queens and the IRT east side line down Lexington Avenue in Manhattan.

New lines that would siphon off traffic from these lines are advanced as one possibility, although this is admitted to be the most expensive solution.

In the case of the hard-pressed Queens lines, some palliatives may go a long way toward relieving congestion, and two possibilities are mentioned as less expensive alternatives: the construction of a new 63d Street tunnel under the East River (an immediate-action plan which the NYCTA itself is pushing strongly); changes in operating procedures that would increase carrying capacity (for example, resignaling the four-track IND line so that three tracks can be used inbound in the morning peak period, and three outbound during the evening peak).

To provide relief on the IRT Lexington line, Tri-State considers one alternative to be use of New York Central's Park Avenue line into Grand Central Station; another would be construction of an express tunnel under Central Park, to link up with the Sixth Avenue line, thereby tapping Bronx traffic now moving down the east side.

NYCTA's present policy is to retire cars when they are 35 years old: this means that purchases of 4,000 new transit vehicles are due in the next two decades. According to Tri-State, including purchases of higher performance cars for new high-speed routes, a $500 million expenditure for new equipment is called for.

Further expenditures for the NYCTA recommended by Tri-State include $20-$30 million for renewal and replacement of signals, power distribution, fixed rail equipment, shops and structures. Improved subway stations and access facilities call for expenditures of $100-$200 million.

Staten Island, the only one of the five borough-counties not linked with the others by rail, may come in for some such link. Tri-State calls for examination of a $200-$250 million expenditure for a five-mile tunnel under New York harbor that would accomplish this.

● **Highways get the cream.** But the bulk of the money, if Tri-State's recommendations are adopted, will be spent on new highway construction.

According to the report, rising incomes and continued outward spread of land development mean that growth in automobile registrations will outpace growth of population. In order to keep pace, the report says that an average investment of over $300 million annually will be necessary over the next two decades. ■

Advertisers' Index

Alger-Sullivan Company 88
Aluminum Company of America 82-83
Arrow Equipment Company 107
Atlantic Coast Line Railroad 92

Bartlett Trailer Corporation ..... Cover 2
Berwick Forge & Fabricating Company 9
Bruce Company E. L. 56
Buck Equipment Corporation 100

Cardwell Westinghouse Company 4
Chicago, Milwaukee, St. Paul & Pacific Railroad Company 26
Colorado Fuel & Iron Corporation 80-87

Demp-Nock Company, The 89
Dorsey Trailers, Inc. 25
Dow Chemical Company, The 48-49

Eberhard Manufacturing Company 102-103
Electro-Motive Division of General Motors Corporation ..78-79
Evans Products Company 30-31
Ex-Cell-O Corporation 93

Freightmaster Division of Halliburton Company 106
Fruehauf Division of Fruehauf Corporation 72-73

General Electric Company Locomotive & Car Equipment Division 95
General Steel Industries, Inc. 16
General Transport Equipment Company, Inc. 96
Grand Hotel 98
Great Dane Trailers 12-13

Hennessy Lubricator Corporation 99
Humble Oil & Refining Company 55
Hydra-Cushion, Inc. 60-61

International-Stanley Corporation ..... Cover 4

Kaiser Aluminum & Chemical Corporation 51
Kansas City Southern Lines 3
Kemlite Corporation 89
Keystone Railway Equipment Company 90-91
Kinnear Manufacturing Company, The 57

Landreth Industries Inc. 35-38
Lord Manufacturing Company 27
Louisville & Nashville Railroad 81

Midland Reclamation Company 108
Missouri-Kansas-Texas Railroad Company 54
Missouri Pacific Lines 62
Molded Fiber Glass Body Company 111

Nationwide Leasing Company 98
New York Air Brake Company, The 97
Norfolk & Western Railway 14-15

Ottawa Steel Products 46

Porter Company, Inc., Fabricated Metals Division H.K. .. 84
Pullman Standard Division of Pullman, Inc. 47

Railway Educational Bureau, The 76
Reading Railroad 98
Republic Steel Corporation Manufacturing Division 33
Reynolds Aluminum Company 58A-58D

Seaboard Air Line Railroad 32
Servo Corporation of America 63
SKF Industries, Inc. 28-29
Southern Iron & Equipment Company 65
Southern Railway System 77
Standard Car Truck Company 101
Streeter-Amet 94
Stromberg-Carlson Subsidiary of General Dynamics 10
Symington Division of Symington Wayne Corporation Cover 3

Texaco, Inc. 85
Thermo King Corporation 34
Timken Roller Bearing Company, The (Railroad Division) 67
Trailmobile Division of Pullman Incorporated 6

Union Pacific Railroad 80
Union Switch & Signal Division of Westinghouse Air Brake Company 52-53
Utility Trailer Manufacturing Company 58

Wabco-Division of Westinghouse Air Brake Company .. 59
Wine Railway Appliance Company 104

USABLE SECOND-HAND
RAILROAD CAR REPAIR PARTS
IRON & STEEL SCRAP
RAILS & ACCESSORIES
PLANT DISMANTLING
RAILWAY EQUIPMENT LEASING
RAILWAY CAR PARTS & SUPPLIES
STORAGE TANKS & RAILWAY CARS

THE PURDY CO.

EXECUTIVE OFFICE—2400 W. 95th St.
Chicago, Illinois 60642
329-9320

BRANCH OFFICE & YARDS
MADISON, ILLINOIS
SOUTH SAN FRANCISCO, CALIF.
LONG BEACH, CALIF.

RAILWAY AGE

1965 back issues available. 50¢ each. Send check to:

RAILWAY AGE

Circulation Dept.,
30 Church St.,
New York,
N.Y. 10007

FREIGHT CAR REPAIRS

Our modern car shops at Buffalo, N. Y., on the PRR and NYC, offer fast, efficient, economical repairs, reconditioning and painting. Freight and tank cars of all types. All work to AAR specifications—every job fully guaranteed.

If your existing cars need greater carrying capacity or greater length we can redesign and rebuild them for today's needs—or we can build new special purpose cars to your exact specifications.

Leasing Plans Available

MORRISON RAILWAY
SUPPLY CORP.
Offices: 508 Rand Bldg., Buffalo, N. Y. 14203
Phone — Area Code 716 — 856-5820

FOR SALE

REBUILT FREIGHT CARS-ALL TYPES

DIESEL LOCOMOTIVES
Various H.P. up to 1000 H.P.
Usable and Rebuilt Freight Car Parts

We also are equipped to repair your cars at our plant in Turner, Kansas.

ERMAN CORPORATION, INC.
TURNER, KANSAS

Send inquiries to:
332 S. Michigan Avenue
Chicago, Illinois 60604
Phone: Area 312-939-0500

Advertising Sales Department

C. J. Fisher, vice president—sales, New York

New York, N. Y. 10007,
30 Church St., WOrth 4-3060
J. S. Vreeland—vice president; sales manager
W. A. Cubbage—district manager
Leonard Preyss—advertising sales representative

Chicago, Ill. 60604,
14 E. Jackson Blvd.
(312) 427-3501
J. R. Thompson—vice president;
K. F. Sheeran—regional vice president;
Walt W. Hutchinson—district manager

Lakewood, Ohio 44107,
12700 Lake Ave., Apt. 1310
(216) 226-8038
Harry H. Melville—vice president

Pittsburgh, Pa. 15219, Room 720,
(412) 471-7871
Frick Building
Michael C. Shea—district manager
Charles E. Keil—advertising sales representative

Atlanta, Ga. 30309,
22 Eighth St., N. E.,
TRinity 2-6720—J. S. Crane

Dallas, Tex. 75219,
3915 Lemmon Ave.,
LAkeside 1-2322
Joseph Sanders

Los Angeles, Cal. 90017,
1313 West Eighth St.
HUbbard 3-8414
Fred Klaner, Jr.

San Francisco, Cal. 94133,
515 Pacific Ave.
GArfield 1-7004
Lewis A. Vogler & Co.

London S. W. 1, England
TRafalgar 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Peter Clifton, F. E. Mizen

Manchester 22, England
Haletop
Wythenshawe Civic Center
Ian Goulden

Paris, 16e., France
46 Boulevard Exelmans
Michel Lemaire

4 Düsseldorf-Rath
Eitelstrasse 32
Max F. Holsinger, E. Hillerbrand, Herbert Haibt, C. W. Schmidt

Tokyo, Japan
Sun Gain Shia, Ltd.
Shiba Nikkatsu Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director

THE ACTION PAGE

Are recession policies perishable, too?

Mature industries often operate with policies that have run out of relevance. There is an all-too-human tendency to assume that what was prudent in time past will prove adequate for present problems.

Problems, however, change. This gets plainer by the day as economists probe and explore our knowledge of forces at work in our system of private capital working in relatively free markets.

Traditional railroad policies for a business slowdown may be a case in point. In time past, industry managers assumed (rightly) that railroads were the first hurt and the last healed by recession. Policies were fairly predictable. At the first sign of economic storm signals, rail managers cut back on buying. They reduced or suspended maintenance programs and sharply curtailed activity not directly necessary to produce transportation demand day-by-day.

Nervousness is beginning to show

For weeks now, industry managers have worried about the rash of auto-production cutbacks and the bears on the stock exchanges. Some experts see an economic slowdown-in-the-making. A few gloomy observers think a business slowdown will trigger a tailspin in railroad tonnages.

This paper cannot predict what's ahead. We are aware of the chain-reaction in such things as steel and coal that sets in when Detroit decides to ease up on production. But we take issue with the idea that rail tonnages will automatically decline when the rate of general business activity slows. We might, if pressed, argue that rail traffic will rise in such a situation.

Important technological and commercial changes have been made by railroads. These changes, in our view, make railroads much less vulnerable to reduced general business activity.

There are some obvious changes. Efficiencies in operations from diesels, automatic yards, CTC, pruned plants, improved rolling stock and other technological betterments enable the industry to handle more tonnage with less than half the workforce formerly required. Additional recession-proofing lies ahead from mechanized accounting, automation of other systems and from the industry's gains in the fight to modernize work rules. But, that's not even half the story.

The really sensational changes have come in the industry's commercial operations. In a negative way, there's this fact: Railroads have fewer cash leaks. Fewer passenger trains, less LCL and less merchandise traffic add up to a plus during general business declines.

On the positive side, basic tonnages are more firmly committed to the railroads than before. The technological revolution that has taken U.S. products out of boxes, bags, bottles, drums and cartons and put them into covered hoppers, tank cars and upon skids, unitized pallet loads and so forth, has committed basic commodities to rail movement.

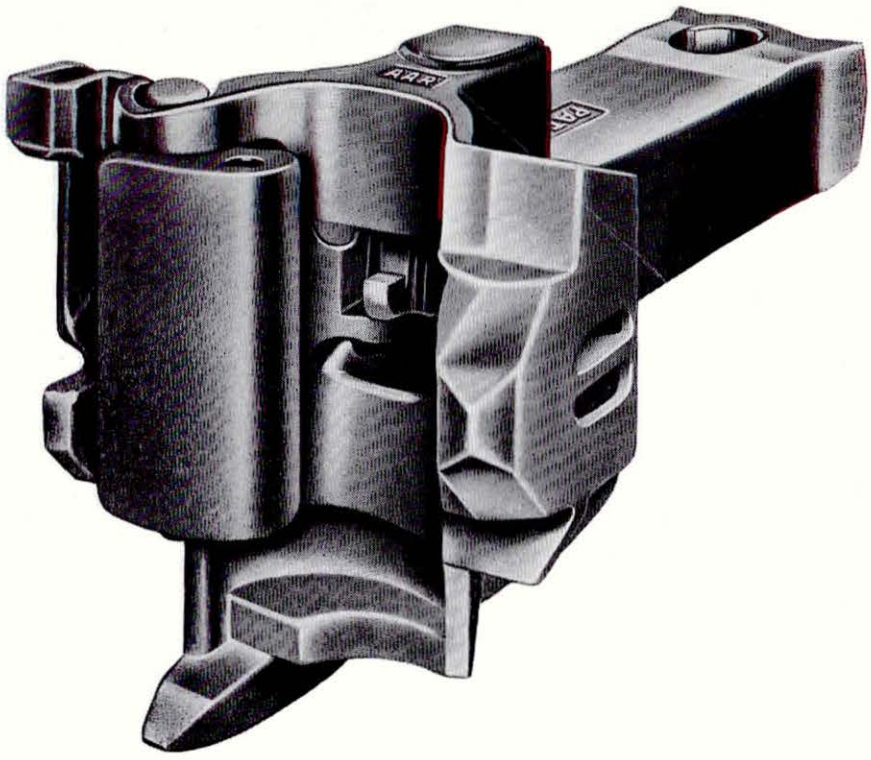
Even more important, the growing spread between rail and highway charges could provide surprising results for railroads if the economy slows down enough to squeeze profit margins for industry-at-large. It is possible there will be widespread diversions of traffic to low-cost modes as distribution executives seek to beef-up shrinking profit margins. Railroads would benefit from such diversions. Some radical thinkers, in fact, argue that railroads will experience an upsurge in traffic with the first serious economic slowdown.

A switch from trucks to rail?

At least one railroad observer thinks there will be enough of an upsurge to strain the industry's capacity. "Really large shippers, those with considerable traffic in trucks, can squeeze many thousands of dollars out of over-all distribution costs by diverting traffic to rail," is the way he explains why he looks for a flow of new business to hit the railroads with the first serious economic setback.

Highway operators, on the other hand, haul traffic that is very vulnerable to the leverages of slowdown. With operating ratios already high—and going higher as rail rates drop—it isn't likely they'll be able to counter such diversions by distribution managers.

The prospects are being read this way in some rail headquarters. A leading rail executive recently noted to one of this paper's editors that diversification is less pressing a problem because of these same prospects. "Successful diversification is aimed at putting money where it can earn 8% or 9%," he noted. "We're already convinced that our money should get invested in plant refinements and in expansion of our capacity, where we'll likely be able to earn 15 or 16%." His comment reflects a basic shift in old slowdown policy and careful planning for today's new possibilities.



Right???

No matter how you measure coupler quality, you need look no further than Symington. You'll find the right coupler, in the right quantity, at the right place, at the right time. Service is right, too! People who order Symington couplers worry less. Buy some.

SYMINGTON DIVISION
SYMINGTON WAYNE CORPORATION
332 SOUTH MICHIGAN AVENUE • CHICAGO, ILLINOIS 60604
Chicago • New York • Boston • Baltimore • Philadelphia • Depew, New York
San Francisco • St. Louis • In Canada: W. K. Davidson & Co. Ltd., Montreal

SYMINGTON WAYNE
TRANSPORTATION EQUIPMENT

Circle 2 on reader service card

NEW

INTERNATIONAL-STANLEY

HOPPER COVERS quickly convert OPEN HOPPERS to GRAIN CARS

Rugged one-trip covers are made of laminated kraft paper reinforced with scrim. Easy to apply.

For further information write or phone:

INTERNATIONAL-STANLEY CORPORATION

8401 West Dodge Road, Omaha, Nebraska 68114 Area 402–391-8770

O-1653

Circle 3 on reader service card